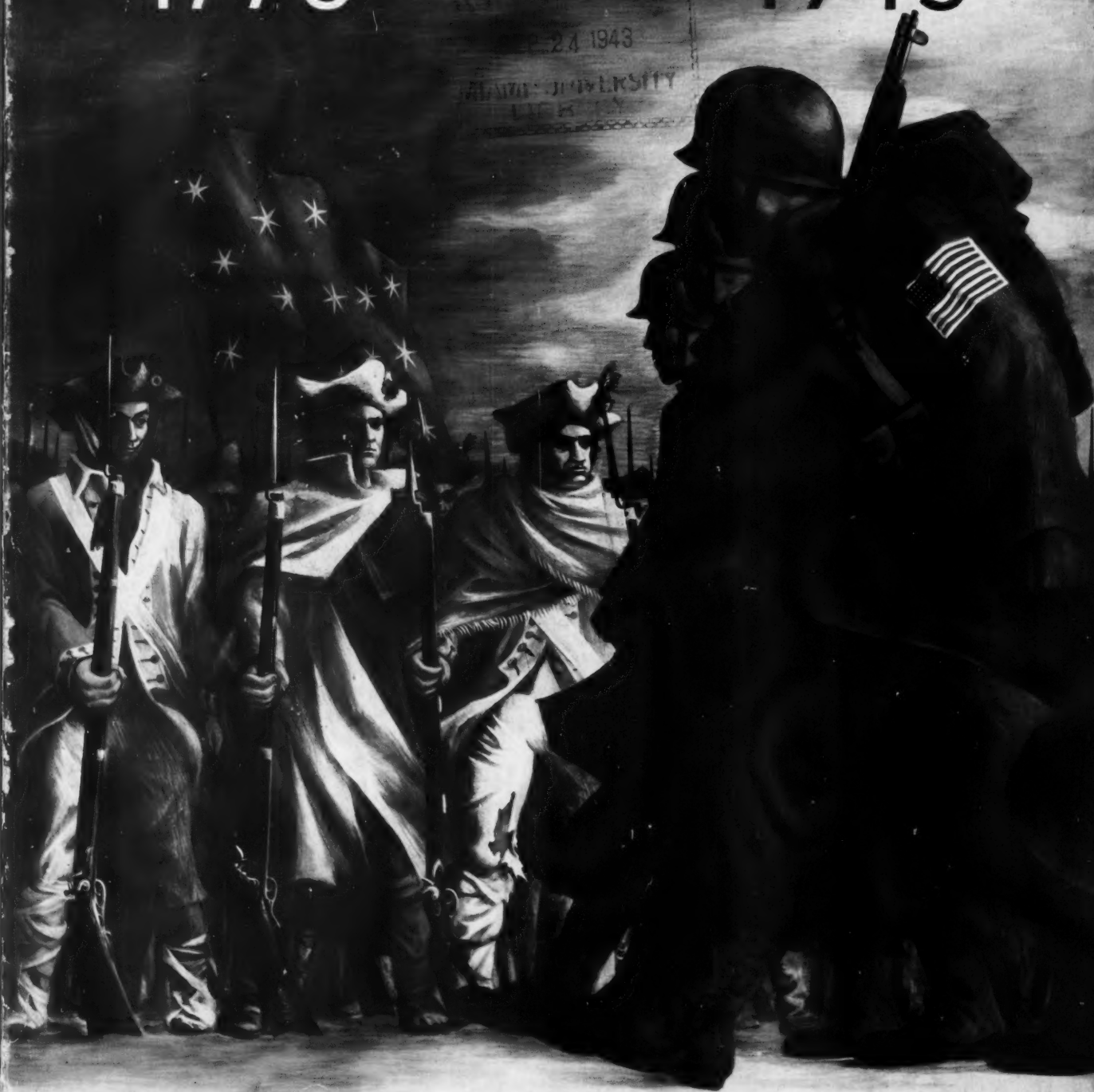


Modern Packaging

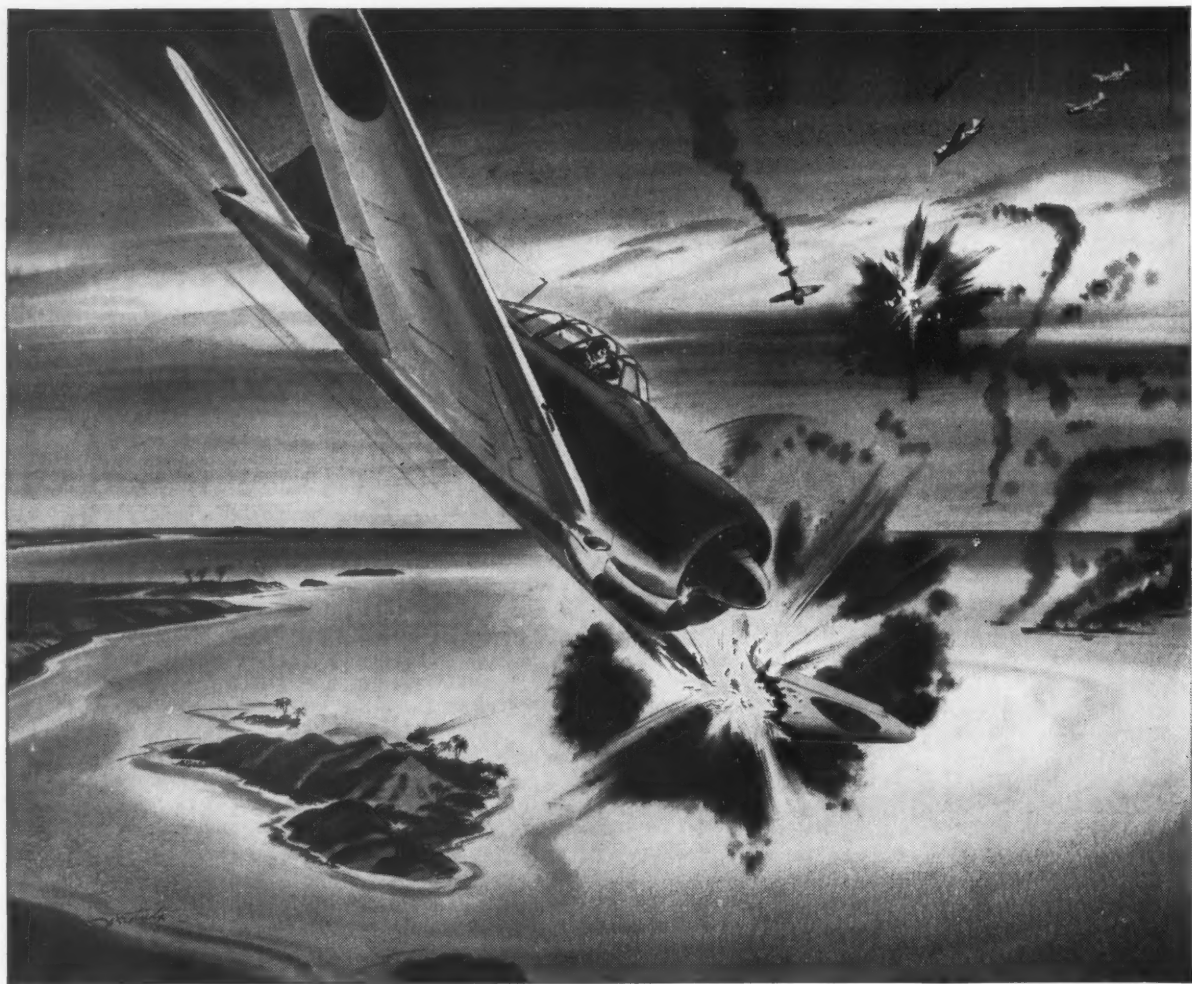
APRIL 1943

1778

1943



AMERICANS
will always fight for liberty



Part of that black puff is us

A LOT OF SHELLS that scream up toward Jap bombers and fighters are set to explode at certain altitudes. To explode . . . they require fuses.

The fuses require protective containers and Canco makes them.

Yet fuse containers are only one of many implements of war fashioned by Canco men and women with the sure speed and skill they used for the packaging industry in peacetime.

The number is in the millions

Canco is making complete torpedoes... from outer casing, propeller and fins... to the delicate and intricate interior

mechanism. Other items include shell containers, demolition kits, hand grenades, land mines, field ration cans, parachute flare cases, T.N.T. containers and many others. The number of units is in the millions.

Canco Machine Shops are also at war

In addition to adapting container manufacturing equipment to war use, Canco Machine Shops are devoting more than 80 per cent of their production capacity to war work. They build that basic need for *all* production: machine tools.

The above uses of metal are some of the reasons why certain containers are

no longer available for many consumer products. True, we of American Can Company still are making cans for the most *essential* civilian items; and we also are doing everything possible to develop substitute containers.

But with Canco—as with every other patriotic American manufacturer—the fighting forces must come first.

MANPOWER IS WARPOWER

Accidents must be prevented!
Co-operate with the War Production Fund to Conserve Manpower by warning your employees not to take chances.

☆ ☆ **AMERICAN CAN COMPANY**

230 PARK AVENUE, NEW YORK, N. Y. ☆ ☆

Standard, Standardize, Standardi-

zation: It's not at all difficult to

find fault with words which mean

"a model, example or test for a given product or purpose." They

suggest limitation and regimenta-

tion. Whereas, many of us like

to be thought of as individualists.

We want to wear a different hat,

live in a different house, drive a

different automobile than our

neighbor. Yet, if we stop and ana-

lyze, *standardization* is largely re-

sponsible for this great civilization

we call the United States. It is

the underlying principle of mass

production. And mass production

has made it possible for us to buy

tens of thousands of necessities

and conveniences at a fraction of

the cost we would have to pay if

they were made up singly or to

match our individual whims and

idiosyncrasies. The C T Cap is a

standard closure for glass pack-

ages. Uniform in fit and appear-

ance; adaptable, dependable, con-

venient; decorative, yet econom-

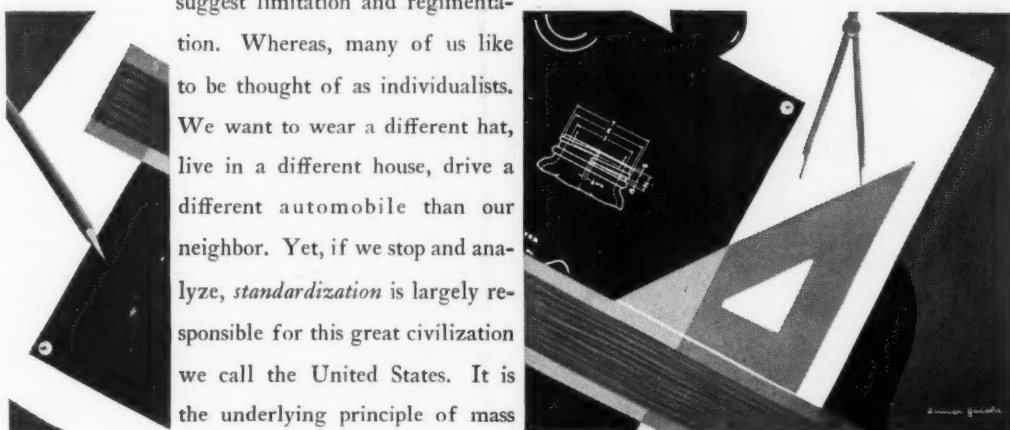
ical; simple in construction;

precision made . . . *standardized!*

 Phoenix Metal Cap Co.,

2444 W. Sixteenth St., Chicago;

3720 Fourteenth Ave., Brooklyn.



Modern Packaging

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 Art Director, **FRANK M. GEMSA**
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VOLUME 16

APRIL 1943

NUMBER 8

OUR COVER

To express the spirit of the times on our All-America cover, Modern Packaging is privileged to reproduce, through the courtesy of the Office of War Information, this new government poster. Here is depicted the heroism of the tattered army at Valley Forge and the strength of the well-equipped U. S. Army of today carrying on the fight for liberty. Details of the poster have an interest beyond the theme itself. The flag the Revolutionary soldiers carry has been authenticated by the U. S. Flag Assn. On the blue background are 6-pointed white stars in the pattern of two crosses, one over the other, derived from the cross of St. George and the Cross of St. Andrew on the British flag. The Stars and Stripes as shown in the picture are worn on the sleeve or on the helmet of all soldiers now fighting overseas to identify them as Americans. The poster was painted by Bernard Perlin of the art workshop of the Graphics Division, Office of War Information.

Member of Audit Bureau of Circulations



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**"BUT WE CAN DREAM,
CAN'T WE?"**

Like most packaging engineers, we're devoting practically 100% of our time to defense work—turning out tools of war, including packaging machines on high priorities. The days are crammed full of *immediate* problems concerned with winning the war . . . *but we are planning for the future.*

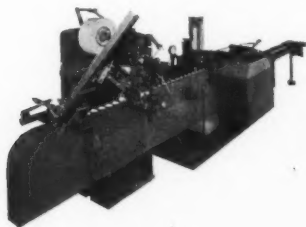
Chances are, you are doing a little planning yourself—considering *new* ideas of packaging—*new* wraps,

new materials, *new* cartoning techniques for your product in the Post-War World.

These new ideas will, undoubtedly, require *new* types of packaging machinery to keep costs down. In the words of a noted expert, "America must come out of this war . . . with production costs at the lowest possible level if we are to maintain our competitive position in world commerce."

So . . . while we're dreaming of post-war developments in packaging machinery . . . Redington is *sharpening* its mechanical and engineering skills on the immediate job of turning out the tools of war.

. . . and we'll *stay* on the job until the job is done!



Several of these combination wrapping-and-cartoning machines have been ordered since the beginning of the war, on high priority, for packaging gauze bandages... bandages badly needed by the Medical Corps.

F. B. REDINGTON CO. (Est. 1897) 110-112 So. Sangamon St., Chicago, Ill.

REDINGTON

PACKAGING MACHINES

FOR CARTONING . WRAPPING . SPECIAL PACKAGING

*Nothing great
was ever achieved
without
enthusiasm*

✓ *Another good thought
passed on
by*



MAKERS OF
FOOD PROTECTION PAPERS

KALAMAZOO VEGETABLE PARCHMENT COMPANY
PARCHMENT, KALAMAZOO, MICHIGAN
BRANCH PLANTS IN PHILADELPHIA, PA., AND HOUSTON, TEXAS

All America Award



1937
1938
1939
1940

... and again
in 1942



"STAPLESS" 30 DOZEN EGG "PULLMAN"

★ Inland Package Engineering scores again. 1937-1938-1939-1940 and now again for 1942 we are proud to accept another award.

Inland Boxes Have Gone to War. For the duration our efforts are directed toward fibre shipping containers for war materials and essential civilian needs. When peace returns Inland boxes will again travel every railroad, airline, highway and byway doing the job of safely delivering every conceivable type of article.

INLAND BOXES BUILD GOOD WILL

INLAND CONTAINER CORPORATION

SALES OFFICES: INDIANAPOLIS, INDIANA • MILWAUKEE, WISCONSIN • MIDDLETOWN, OHIO • EVANSVILLE, INDIANA • CHICAGO, ILLINOIS • DAYTON, OHIO • CANTON, OHIO • LIMA, OHIO • CINCINNATI, OHIO



Ever hear about V...-Mail?

We did not originate V...-Mail. But we do supply paper for it. V...-Mail is only one example of the wartime importance of paper. Paper products are not only solving many odd problems, but paper itself is fighting in war plants and at the front. From ration books to cartridge cases, paper is doing innumerable vital jobs.

We know quite a bit about it because we *make a thousand miles of paper a day*. All our past experience, all our research facilities, are focused on helping the war effort, and in the process we're learning new, almost incredible things that can be done with wood fiber. When materials come again into the market and new demands for cellulose products can be met, we will be able to supply papers for many purposes.

In the meantime Oxford merchants and Oxford salesmen are at your service.

Can paper products take the place of scarce materials vital to the war effort? All our research facilities are concentrated on finding the answer.

● Paper is taking on a lot of assignments in this war.

Sometimes it doubles for strategic metals. Sometimes it is the means of cutting shipping space or saving time.

Take V...-Mail, for example.

Letters written on V...-Mail forms travel only to the point where they're photographed on 16 millimeter film – and 25 pounds of film carry 150,000 letters.

Then the film is shot by plane to any part of the world where fighting men are hungrily awaiting letters – enlargements from those tiny frames of film are made and delivered in a special V...-Mail envelope.

OXFORD PAPER COMPANY

230 Park Avenue, New York, N. Y.

Mills at Rumford, Maine & West Carrollton, Ohio

Western Sales Office:

35 E. Wacker Drive, Chicago, Ill.



"BLOW HEAD PRESSURE-21"

*... a phrase from the
strange language that
helps make better glass*



THIS IS JOSEPH HURST. All day long in one of Armstrong's plants, he reads things like "Blow Head Pressure—21. Drop in Blank—Early. Head Valve Set—Open." Phrases like these mean little to the layman, but to Joseph Hurst they mean the difference between ordinary glass and Armstrong's Glass. They tell him how to make every one of more than 45 adjustments on each glass machine in operation.

The card from which he reads is a history of previous runs of similar bottles. By following its strangely worded directions, he makes sure that

the complicated machine settings are exactly right for the particular ware being blown.

Thus his special knowledge, and the knowledge of the men and women with whom he works, means that you can expect the same top-quality, the same consistent performance, from every run of Armstrong's Glass you order.

The story of Armstrong's Glass and of the men and women who make it is told in a new booklet, "Men and Glass." For your free copy, write Armstrong Cork Company, Glass and Closure Div., 5904 Jackson St., Lancaster, Pa.



ARMSTRONG'S GLASS



and **ARMSTRONG'S
CLOSURES**



Firsts

BY BAGPAK

first to develop an open mouth heavy duty multiwall paper bag for fertilizer, sugar and many other fine food products and chemicals.

first to ship fertilizer and sugar in open mouth heavy duty multiwall paper bags closed in the customer's plant.

first to offer the stapled gussets.

first to offer the staggered gussets.

first to develop a rain-resistant outside sheet.

first to offer a moisture-proof, pilferage-proof, dust-proof open mouth heavy duty multiwall paper bag to any industry.

first to offer automatic packaging of the open mouth heavy duty multiwall paper bag to any industry.

first to offer a complete packaging service for open mouth heavy duty multiwall paper bags: bags, bag machines, spouts, scales, bag closing materials and carliner—all from one source of supply!



In addition to Cushion Stitch Sewn open mouth bags, Pasted Valve bags and Pasted open mouth bags, our affiliate, George & Sherrard Paper Co., makes sewn valve bags. You are able to order, therefore, a specialized bag for your specialized needs. Remember, too, that since both companies use only non-critical materials, your source of supply is constantly assured.



TRADEMARK REG
U.S. PAT. OFF.

BAGPAK

INC

220 E. 42nd STREET

NEW YORK CITY



PERISHABLE - WRAP IN PLIOFILM

SEE FOR YOURSELF — Be sure to see the mighty Pratt & Whitney airplane engine "packaged" in Pliofilm — at Booths 262-263, Packaging Exhibit, Hotel Astor, New York City, April 13-16.

You don't usually think of airplane engines as "perishable" — but it takes only a little dampness in the air to rust and corrode their high-precision parts, especially when shipped overseas.

The former method of protecting engines against moisture-attack with a coating of heavy grease, inside and out, took from 50 to 75 man-hours to apply and remove — a labor bottleneck in wartime. This is now eliminated by shipping engines in hermetically sealed bags made of Pliofilm — Goodyear's unique water-moisture-vapor-proof wrap that was revolutionizing the

packaging of foods, and all moisture-sensitive products, before its entire production was drafted for military service.

In Pliofilm, engines are being shipped everywhere, stored anywhere, and emerge bright and spotless, free from rust, ready for instant mounting. No other pliable, transparent packaging material has ever withstood so severe a moisture-test. That is why it will pay you to

remember Pliofilm for after-victory packaging of all fine merchandise whose quality depends upon sealing natural moisture *in*, or keeping destructive moisture *out* — foods, pharmaceuticals, chemicals, tobacco, precision instruments and countless others.

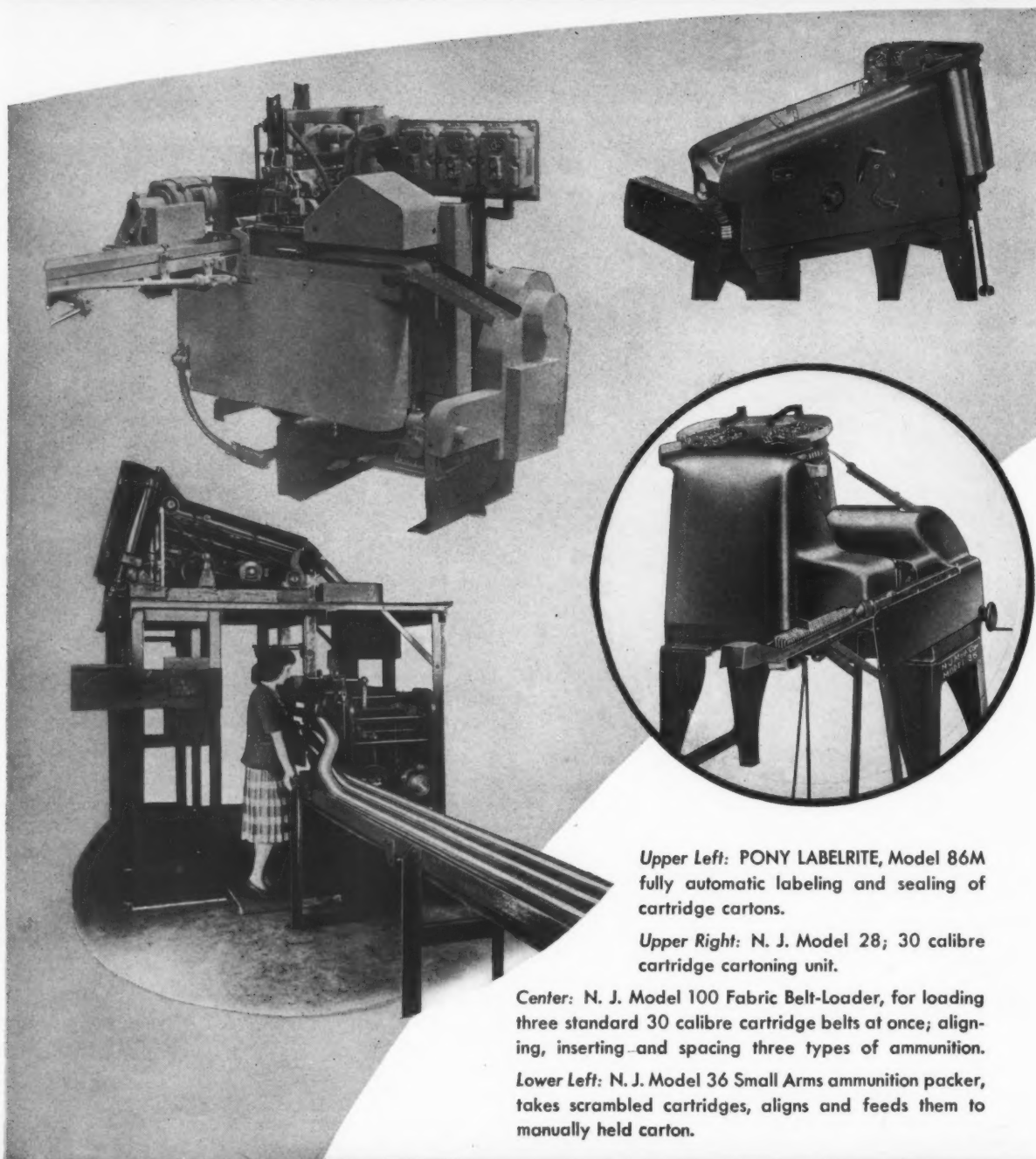
To get a head start on your postwar package, write for information now. Address: Goodyear, Pliofilm Sales Dept., Akron, Ohio.

Pliofilm



Pliofilm — T.M. The Goodyear Tire & Rubber Company

Four ALL-AMERICA



Upper Left: PONY LABELRITE, Model 86M fully automatic labeling and sealing of cartridge cartons.

Upper Right: N. J. Model 28; 30 calibre cartridge cartoning unit.

Center: N. J. Model 100 Fabric Belt-Loader, for loading three standard 30 calibre cartridge belts at once; aligning, inserting and spacing three types of ammunition.

Lower Left: N. J. Model 36 Small Arms ammunition packer, takes scrambled cartridges, aligns and feeds them to manually held carton.

NEW JERSEY MACHINE CORPORATION

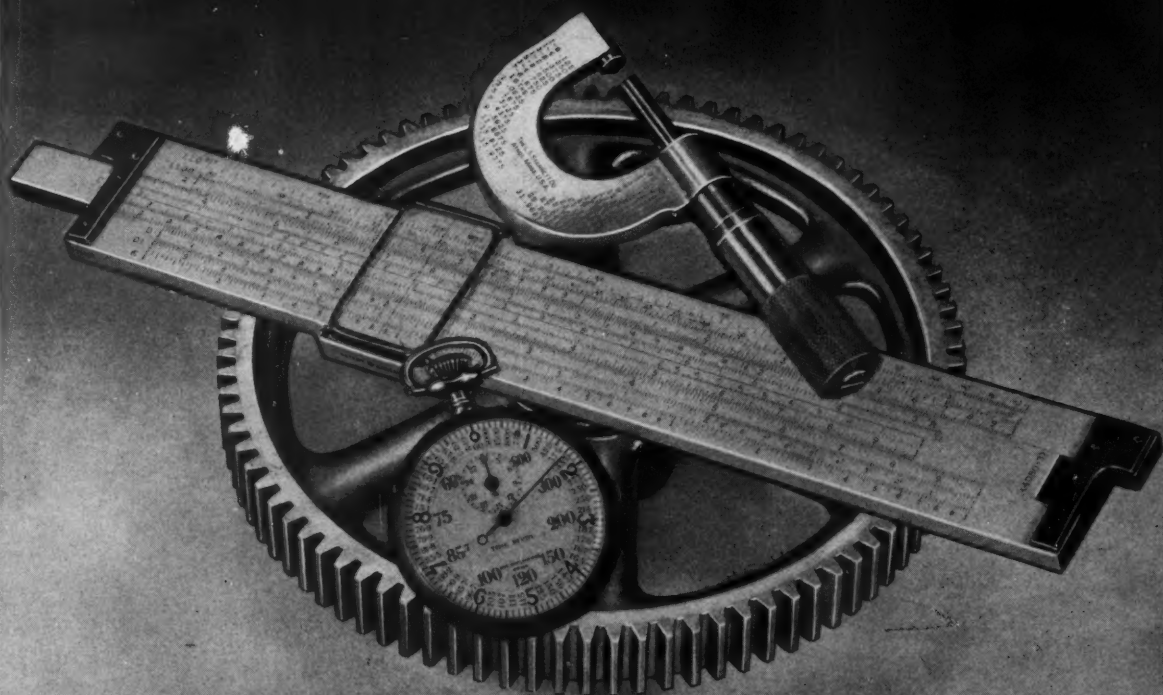
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WAR-TIME AWARDS!



SPECIAL
AWARD
Machinery
Group

UTILIZING THE PRECISION AND
TIME-SAVING ENGINEERING FOUND IN
THE LABELRITE AND MOTOAIR PUMPS
AND OTHER NEW JERSEY UNITS.



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1600 WILLOW AVE., HOBOKEN, N. J. . . 325 W. Huron Street, Chicago, Ill.

ROWELL BOXES

FINE SUBSTITUTES FOR METAL

AWARD:

STATIONERY AND SUPPLIES
THE CARTER'S INK COMPANY

ROWELL paper set-up boxes furnish strong and beautiful containers for the Carter line of ink eradicators.

These products, formerly packaged in metal containers, require protection in transit, sale and use. They also must have the distinctive appearance that classifies the entire Carter packaging group.

We congratulate the Carter's Ink Company on their well-deserved Award. We are proud, indeed, to have been able to contribute our share to such fine packages.

Our service is available to all industries who require finer, stronger packages.



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Clark Avenue, St. Louis, Mo.
Phone: Central 1344

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134 N. La Salle St. Rm. 926
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WORLD'S ARMY OF APPLICATION

WORLD Automatic and WORLD Semi-Automatic Labelers are keeping everlastingly on the job — faithfully performing their share of the important task of turning out packaged products essential to the nation's health, welfare and morale. Reports from the field prove the soundness and sturdiness of WORLD Labeler design and construction.

Don't fail to get in touch with WORLD labeling headquarters should you need assistance on converting your labelers to new applications or keeping them at the peak of operating efficiency.



ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

Worcester, Massachusetts

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SPokane	VANCOUVER	SYDNEY, AUSTRALIA	WELLINGTON, N. Z.	SAN JUAN, P. R.		

★ ★ ★
Highest Award
★

1942 ALL-AMERICA PACKAGE COMPETITION
★





Take good taste, technical excellence, understanding of display and merchandising values—add them together and you have prize-winning packages like Fleetwood and Spud.

In the field of tobacco in the 1942 All-America Package Competition, they were first in the eyes of the judges—but better still, they are getting a big hand at the tobacco counters of America.

For both these accomplishments, *congratulations to The Axton-Fisher Tobacco Company!*

Naturally, we at Gardner-Richardson feel good about all this, too, for it was our privilege to produce the Fleetwood and Spud cartons.

The paperboard used in these cartons is our revolutionary new *Coated Lithwite*; the printing is an example of the every-day high standards which exist throughout the Gardner-Richardson plants.

The result is a sales-winning combination, as many large users of folding cartons know.

The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard

MIDDLETOWN, OHIO



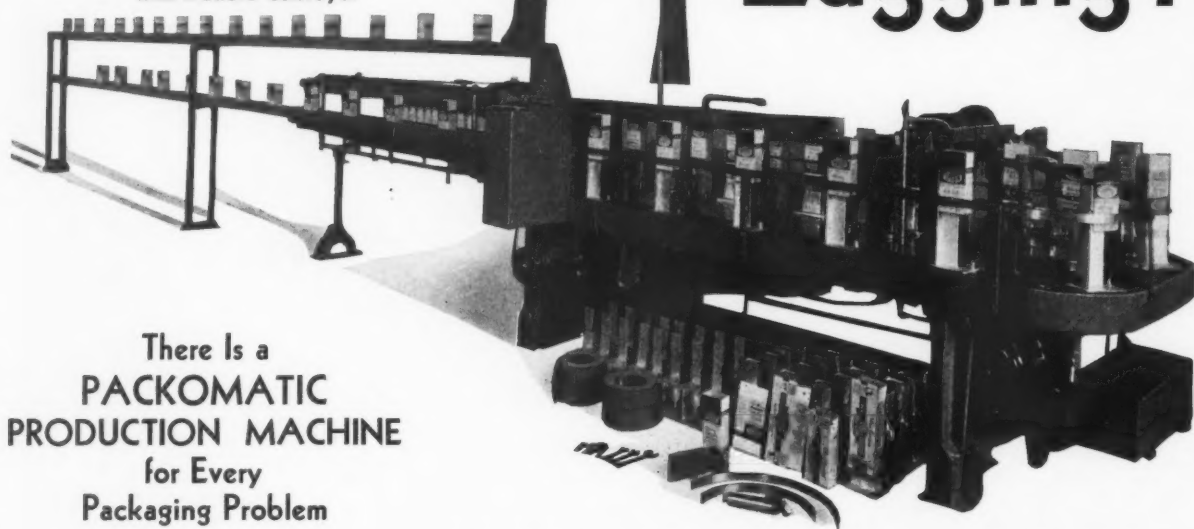
Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

APRIL • 1943

17

Is Your War Production Lagging?

★
Packomatic Combined Bottom
and Top Carton Sealer
with Double Conveyor



There Is a
PACKOMATIC
PRODUCTION MACHINE
for Every
Packaging Problem

Shipping Case Sealing Machines

Shipping Case Printing Machines

Carton Making Machines

Carton Sealing Machines

Paper Can Tube Cutters

Paper Can Shrinking Machines

Paper Can Labeling Machines

Paper Can Set-Up Conveyors

Paper Can Tube Gluers

Paper Can Automatic Cappers

Consecutive Numbering Machines

Automatic Net Weight Scales

Automatic Volumetric Fillers

Automatic Boxing Machines

Auger Packers—Dating Devices

ESSENTIAL FOOD PACKING IS A MUST WAR INDUSTRY!

U. S. Food Packers must not let their production lag. They have a tremendous job right now, and day by day their job grows bigger and bigger.

It has been our business for over twenty years to build automatic machinery and equipment for speeding up production of foods, and other products. Packomatic machines are working night and day throughout the U. S. A. and in many other countries of this world at the job of high speed food production.

If you are packing necessary foods, or other products essential to the War effort, we can help you.

We are represented in all principal cities.

Our Engineers are anxious to serve you.

We're as close to you as your telephone.

"BUY MORE WAR BONDS AND STAMPS"

PACKOMATIC

PACKAGING MACHINERY

J. L. FERGUSON COMPANY, JOLIET, ILLINOIS



SPECIAL **AWARD** FOR PACKAGE DEVELOPMENT

The dehydrated soup pack, standard with many manufacturers, is an original Shellmar development. This laminated glassine and MSAT cellophane bag, with its special thermoplastic heat-seal coating, was developed through long years of experimentation to replace the unavailable foil package.

It is the basic type of container for protecting a hygroscopic product with or without a free fat content. At the same time, it provides full advertising space for its users.

This consumer development is another creative aspect of our packaging service for industry. Our designers and packaging engineers are strategically located to serve all fields with every type of protective container—from soup bags to moisture-proof bags for airplane motors. Our extensive manufacturing and laboratory facilities are at the service of all.

Your packaging problem will receive prompt, expert attention.



SHELLMAR
PRODUCTS COMPANY



224 S. Michigan Ave.
CHICAGO, ILL.
MOUNT VERNON, OHIO
PASADENA • CALIFORNIA
3115 Empire State Bldg.
NEW YORK, N. Y.

"A MEDAL FOR ME? GIVE IT TO MY COMPANY."

"This Is Not a One-Man Show"



YOU said it, Barney Ross! Marine Corporal Barnett Rosafsky is O. K. for the records but to the folks back home you're Barney Ross, prize-fighter. And all humanity has a stake in the prize you're fighting for now.

Only a world ago you *were* a one-man show—trading punches with Armstrong, side-stepping McLarnin, dodging left-hooks and handing them out . . . "The ring is kid's play compared with this battle out here," you say? You tell 'em, champ. You're the guy who stood up and swung hand grenades at Japanese machine guns. You're the guy whose tin hat stopped 30 bullets in one dark rain-soaked jungle night at Guadalcanal. You're the guy who crawled out of a fox-hole and dodged more bullets to drag a wounded comrade back from death.

"This is not a One-Man Show!" Keep telling 'em, champ. Louder. Until it sinks into their very marrow. *It takes everybody to win this war!* The man at the gun

and the man on the tanker and the man on the production line. The butcher, the baker, the candlestick maker. The little kid collecting scrap, and the big mill-owner melting it to make steel. The miner in the pits, and the manager in the top-floor office. The housewife squeezing her budget to buy a bond, and the government official breaking his head to make democratic rationing work.

No time now for shadow-boxing, no time for sparring with imaginary enemies. The real enemy is too close, and in too many places.

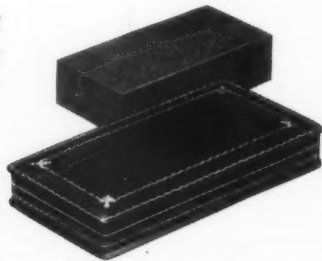
Thanks for the punch-line, Barney Ross, prize-fighter—or Corporal Rosafsky, if you want it that way. The prize goes to your company . . . the prize goes to the 130,000,000 and to the other millions who fight for it. None will deny them the freedom from want and fear—the freedom of speech and religion . . . when the enemy is counted out.

One of a series of editorials published in the interest of the War Effort. Back up our heroes! Buy more Bonds!

Arrow

Arrow is proud that its facilities have been enlisted by the Army and the Navy to make many of the boxes which hold the medals for heroes of democracy.

BOXES AND DISPLAYS



ARROW MANUFACTURING COMPANY, INC., 15th and Hudson Streets, Hoboken, N. J.

Putting this
in safekeeping



NO-OXIDIZED
Wrapper No. 4
by Dearborn Chemical Co.

NO ONE material could give the protection Uncle Sam demands to meet the packaging requirements of war; the job has been licked by an ingenious method typically American. If you are not familiar with this latest, most spectacular development in wartime packaging, here is the story:

For packaging military equipment (and food) for shipment from one end of the earth to the other, the government set up the toughest specifications anyone ever saw. But the lami-

nators and combiners found the answer: laminated combinations of materials in which each contributed in some way to a team that licked the problem.

In many applications, LUMARITH contributes its part. Usually as an oil and water barrier. Often as much more. For packaging people know that LUMARITH can be counted on to contribute these qualities: it is non-corrosive, it protects against mold—is not affected by extremes of humidity and temperature—is

proof against water, grease, oil, germs—does not dry out, shrink, become brittle.

This new development has solved many packaging problems for Uncle Sam; but the wartime need is enormous. And its possibilities have been merely touched. If you are working in this vital field, we shall be glad to cooperate as usual. CELANESE CELLULOID CORPORATION, 180 Madison Avenue, New York City. A division of Celanese Corporation of America.

**CELANESE
CELLULOID
CORPORATION**

LUMARITH

REG. U.S. PAT. OFF.


PLASTICS FOR PACKAGING

The First Name in Plastics

A DIVISION OF CELANESE CORPORATION OF AMERICA

APRIL • 1943

21



"What's behind that curtain?"

**"I hear it's the new
Sav-way line of machines
... and any Sav-way
production is well
worth watching."**

Photograph courtesy of
RADIO CITY MUSIC HALL

Keep an Eye On

Saw-way

INDUSTRIES

4875 EAST EIGHT MILE
DETROIT, MICHIGAN

Representatives throughout U. S. A. and Canada

Williams

means

PAPERS *for* ALL KINDS OF PACKAGES . . .

WILLIAMS is the central source for papers for all kinds of paper packages. We coordinate the activities of converters, printers, embossers, laminators, and fabricators.

The paper packages that are on the market *today* for holding, protecting and selling tooth powder, oil, grease and foods have proved the ability of paper to hold these and many other products previously packed in metal.

WHAT OUR SERVICE DOES:

We coordinate the activities of many paper mills and converters.

At your disposal is the development facilities of these manufacturers—the ones best able to give you the type of paper you need.

We also centralize the activities of various paper coaters—tie them into your packaging program.

The results of our service may be seen in a number of satisfactory grease-proof, moisture-proof, scuff-proof and other protective coatings and laminations developed for wartime packages.

We will be glad to help you on any packaging problem requiring paper.

CHARLES W. WILLIAMS & CO., INC.

FABRICATORS, PRODUCERS, DISTRIBUTORS OF ALL TYPES OF PAPERS

303 LAFAYETTE STREET, NEW YORK

**624 SO. MILLER STREET
CHICAGO**

**167 OLIVER STREET
BOSTON**

THE CONE SHAPE

WINS

The only award in the cosmetic and toiletries group of the All-America Package Competition was made to the Colgate-Palmolive-Peet Company of Jersey City, New Jersey, for this conical-shaped tooth powder package—produced by SONOCO.



Designed originally to eliminate the use of critical materials, the SONOCO ALL PAPER conical-shaped container has many advantages of its own—rigid strength—low center of gravity—fits the hand—ideally suited for display—practical in various sizes and tapers—adaptable to filling equipment.



SONOCO PRODUCTS COMPANY

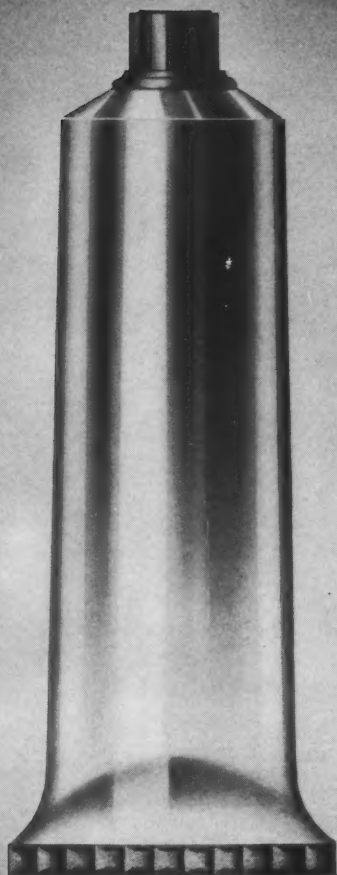
BRANTFORD
ONT.

HARTSVILLE
S. C.

MYSTIC
CONN.

**On the
Battle Front**

**On the
Home Front**



Not Just a Collapsible Tube But a Sentry of Life and Health!

PERHAPS the scene is an American field hospital somewhere in the Solomons. A soldier, stricken with tropical sickness, finds comfort in the healing powers of a sulfa drug...a sulfa drug poured from a collapsible tube.

Or adrift on the Pacific, thousands of miles from land, a pilot and bombardier...searching the horizon for the help they trust will come...thank Providence for the rations that keep life flowing—rations protected in a collapsible tube.

Yes, on every Allied war front and on the home front, too, collapsible tubes are doing many vital tasks. For whatever the conditions, whether blistering heat or sub-zero cold, collapsible tubes pro-

tect their contents, be it food or drugs, tooth paste or skin cream.

The Sun Tube Corporation is making thousands of collapsible tubes for war purposes. And its large facilities also enable it to serve the needs of manufacturers who seek Sun Tubes for domestic use. Sun Tubes are convenient and easy to use. They protect products against deterioration from light or air—and prevent contamination. Every Sun Tube is metallic, strongly made to withstand hard usage.

If you have a product that would be improved by a Sun Tube package, let us give you complete details. Write or telephone today to the Sun Tube Corporation, Hillside, New Jersey.

SUN TUBE CORPORATION . . . Hillside, New Jersey

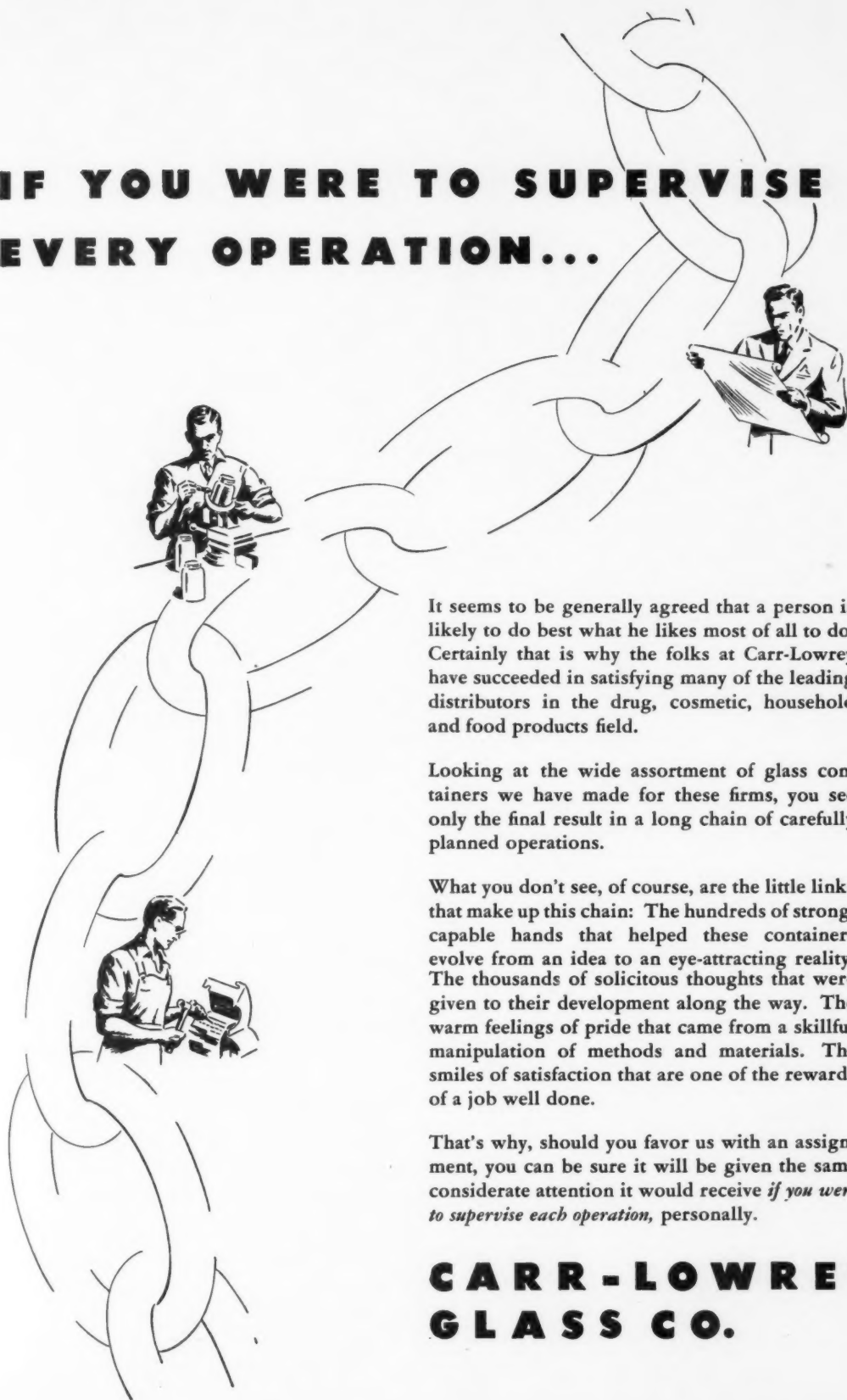
CHICAGO, ILL.
James L. Coffield, Jr.
360 No. Michigan Avenue

ST. LOUIS, MO.
M. P. Yates
315 Chestnut St. (Room 125)

ST. PAUL, MINN.
Alexander Seymour
903 Pioneer Bldg.

LOS ANGELES, CALIF.
R. G. F. Byington
1260 North Western Ave.

IF YOU WERE TO SUPERVISE EVERY OPERATION...



It seems to be generally agreed that a person is likely to do best what he likes most of all to do. Certainly that is why the folks at Carr-Lowrey have succeeded in satisfying many of the leading distributors in the drug, cosmetic, household and food products field.

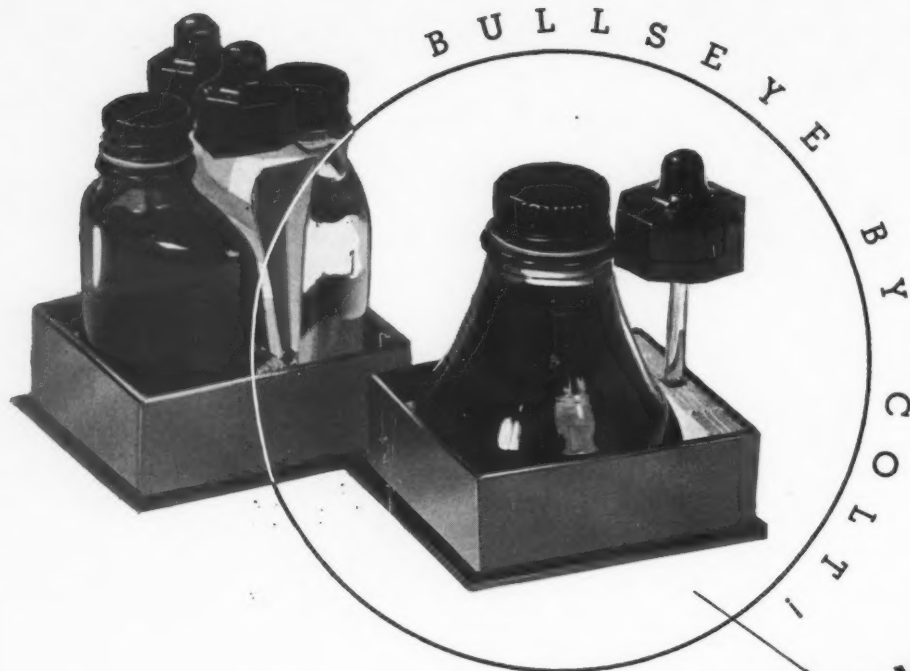
Looking at the wide assortment of glass containers we have made for these firms, you see only the final result in a long chain of carefully planned operations.

What you don't see, of course, are the little links that make up this chain: The hundreds of strong, capable hands that helped these containers evolve from an idea to an eye-attracting reality. The thousands of solicitous thoughts that were given to their development along the way. The warm feelings of pride that came from a skillful manipulation of methods and materials. The smiles of satisfaction that are one of the rewards of a job well done.

That's why, should you favor us with an assignment, you can be sure it will be given the same considerate attention it would receive *if you were to supervise each operation, personally.*

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD. New York Office: 500 FIFTH AVENUE Chicago Office: 1502 MERCHANDISE MART



COLT CLOSURES TOP ANOTHER WINNER



★ The Carter ink-eradicator line—winner of one of the few 12th Annual All-America Awards, and the only winner in Stationery & Supplies—uses Colt plastic applicator closures.

The caps have special plastic washers to keep them proof against spilling and evaporation—another packaging development by a leader in plastics packaging.

What is the reason behind the wide use of Colt plastic closures and containers by All-America winners and big-name merchandisers in all fields of packaging? The answer: Colt's mastery of plastics molding, backed by the full knowledge of how and where plastic materials may best be used.


We can show you where plastics fit, in war or peace, on top of your package or around your product. Colt moldings have been identified with high achievement in plastics since the early days of the industry.

We have pioneered many important developments, and maintain the same creative leadership today as evidenced by this and other Awards in All-America Package Competitions.

COLT

ARTISTS
OF PLASTIC
MOLDING


PLASTICS DIVISION
COLT'S PATENT FIRE ARMS MFG. CO.
HARTFORD, CONN.



ON GUARD...

AGAINST MOISTURE-DAMAGE TO FOODS!

McLAURIN-JONES *Moisture-Resistant Food Wrap and Waterproof Tape*



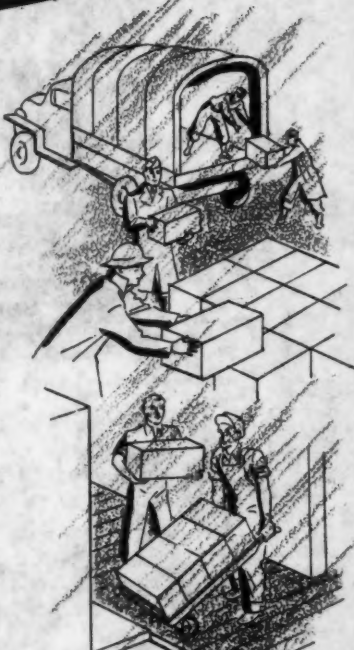
Moisture damage is a constant threat to the foods being shipped to our boys in every corner of the globe.

The Services of Supply must be on its toes, ready to take every precaution—be constantly on guard against water that might permeate these priceless cases and cartons of foods.

To aid in this unrelaxing vigil come McLaurin-Jones' new Moisture-Resistant Food Wrap and the waterproof Solseal-

Coated Tape for strapping and sealing watertight packages (and provided with adhesive materials capable of withstanding the rigors of heat, humidity and cold). They are the answer to a quartermaster's prayer for thorough protection of dehydrated and frozen foods as well as grease products for overseas shipment.

If you require this type of inner-liner and bag-wrap, or waterproof tape, get in touch with us *now*! We'll respond promptly with complete technical data. Or, if you prefer, we can make the necessary analyses for you in our completely equipped laboratories!



This moistureproof, greaseproof, heat-sealing coated (2 sides) stock is one of many WARE-WRAP papers. This new line also includes laminated as well as coated sheets, suitable for frozen and dehydrated foods, grease products, etc.

Included are the following:

PHOTO MOUNT CLOTH

GUMMED CLOTH TAPES

LAMINATED MATERIALS

ON GUARD... AGAINST MOISTURE-DAMAGE TO FOODS!

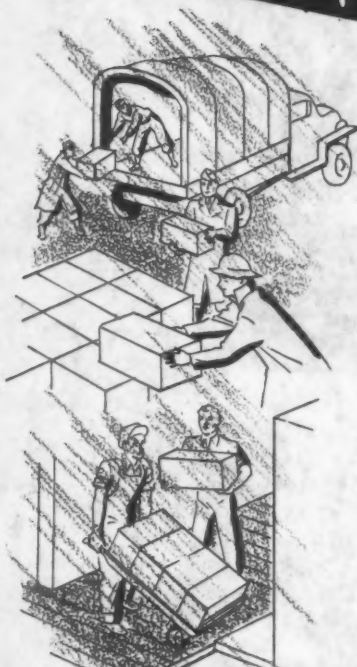
McLAURIN-JONES Moisture-Resistant Food Wrap and Waterproof Tape



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LAMINATED MATERIALS

GUMMED CLOTH

PHOTO MOUNT CLOTH

Included are the

This Carton **BUILT A TANK!**



Of course we don't mean that literally, but the tin formerly used in aspirin boxes has now been made available for the construction of tanks, planes and guns.

The aspirin box presented a double problem: First—converting from tin to boxboard, Second—producing a package in board as small as the original tin but still easy and economical to fill. This carton not only saves tin but also saves you money.

Perhaps you, too, have a problem of substitution. If so, send it to us. Very possibly we can submit an economical and practical solution.



THE
RICHARDSON · TAYLOR · GLOBE
CORPORATION



THE LITTLE MOLDER WHO WASN'T THERE...

YOU saw d...n few plastics in any form at the 12th Annual All-America Package Competition. You didn't see any of ours, at all.

So our regular advertisement for this special issue, which would normally contain a certain amount of boasting about how terrific we are in molding boxes or closures, is just an apology.


We are, in the well-worn phrase, "devoting all our efforts toward winning the war."

Not only that, you have to have a high priority to get any plastic materials for any packaging application. And the stuff you do get has to be "extended," which means what bartenders used to do to whiskey in the good old Prohibition days. They "extended" their stock with water or alcohol—but the finished product wasn't as good.

After this thing is over, you'll be able to get your 100% plastics in a lot of new forms from the little molder who wasn't there. Remember?

"A Ready Reference for Plastics" written for the layman, is now in a new edition. If you are a user or a potential user of molded plastics, write us on your letterhead for a copy of this plain non-technical explanation of their uses and characteristics. Free to business firms and government services.



BOONTON MOLDING COMPANY

MOLDERS OF PLASTICS • PHENOLICS • UREAS • THERMO-PLASTICS
BOONTON • NEW JERSEY • Tel. Boonton 8-2020
 N. Y. Office—Chanin Bldg., 122 East 42nd Street, Murray Hill 6-8540



WAR TIMES . . . "WAR PACKAGING"



THE ultimatum of war that has touched even the ladies' "Packaging" is *Economize and Convert*. Where critical metals have been used, it's simply *Convert*—to paperboard, usually.

There *is* paperboard for important packaging jobs—and there is *no restriction whatever* on paperboard packaging *ideas*.

We at Container Corporation would like to help

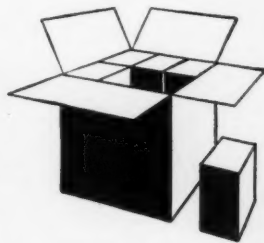
you convert to paperboard. Our whole history is successful package conversion—the development of new cartons and shipping cases, new linings, finishes and coatings that are more economical, more protective, more convenient.

The idea—and the package—for your product can be developed by our staff. Call or write for a consultation.

CONTAINER CORPORATION OF AMERICA

General Offices: 111 W. Washington St., Chicago • New York • Rochester • Natick, Mass. • Philadelphia
Akron • Cincinnati • Cleveland • Circleville • Detroit • Indianapolis • Wabash • Carthage • Anderson, Ind.
Peoria • Rock Island • Minneapolis • Baltimore • St. Louis • Fernandina • Dallas • Ft. Worth

EVERYTHING PAPERBOARD FOR EVERYTHING PACKED



APRIL • 1943

33



SHORTENING MANUFACTURER SAVES METAL

New "Victory Package" uses Du Pont Cellophane



Simple apparatus for heat-sealing the Cellophane disc closure.

The Humko Company, well-known shortening manufacturer, has solved its metal replacement problem with the Cellophane "bag-in-box" unit illustrated.

The new unit is unique, but very simply constructed. The sturdy fibre container has a greaseproof inner liner—a specially made bag of Du Pont Cellophane. The top of the container is covered by a printed Cellophane disc, and is turned by a removable fibre lid.

A semi-automatic set-up helps keep production speed up and packaging costs down.

"Reports indicate the new package is doing a good job in delivering shortening to consumers in fine condition—and the housewife's reaction is very favorable," says Humko.

If you have a metal replacement problem, let us work with you. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wil., Del.




Cellophane

FOR VICTORY PACKAGES

PAN AMERICAN
PAA  **AIRWAYS SYSTEM**

*Speeds Precious Parts
in MASON MAILMASTERS*



PAN AMERICAN'S famous Clipper Ships are spanning the oceans, uniting the world and carrying important goods of commerce and vital ones of war! Sometimes landing in a jungle cove, sometimes on a sun-baked desert, these great planes must carry their cargoes fast, must carry them light. Many of the Clipper cargo shipments are packed in MASON MAILMASTERS, which permit a handy, one-packaging operation that not only protects the product but saves shipping costs. Investigate MAILMASTERS for your small parts shipping, and see the saving, protection, and ease with which this famous Mason Box product can help you.

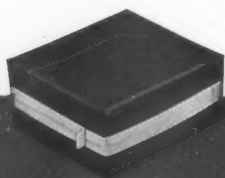
A Pan American Airways System employee packing vital radio replacement parts in Mason Box MailMasters at one of the Southern Terminals of this famous Air Line.



The **MASON BOX COMPANY**
ATTLEBORO FALLS, MASSACHUSETTS



Only their pitching lifeboat stands between them and death. But . . . they'll get home again, for men of the American merchant marine are rugged and resourceful. Living with danger as their constant companion, their courage and devotion to duty today are laying the foundation for victory and a better world tomorrow.



"SCOTCH" TAPE provides moisture-proof, gas-proof seal for blood plasma cartons.



Emergency Ration Carton sealed air and water-tight with "SCOTCH" TAPE.



Parts' boxes for war machines of all kinds are sealed with "SCOTCH" TAPE.

They'll Get Back!

THANKS TO COURAGE, A COMPASS, AND THEIR EMERGENCY RATIONS

We are proud that "SCOTCH" TAPE, by safeguarding emergency food rations with a watertight seal, may be helping to bring sailors like these back safely. We are proud, too, that all through the war effort from assembly line to front line, more than 100 different types of "SCOTCH" TAPE are doing war jobs today. These "SCOTCH" TAPES vary from cardboard thickness to tissue-thinness, and have an equally wide range of tensile and adhesive strengths.

If you have a war production problem,

"SCOTCH" TAPE with its wide variety of both hand and automatic dispensing equipment may help you solve it. Our experience in developing time-saving methods in other war production problems is at your disposal.

A request on your business letterhead will bring your copy of the "SCOTCH" TAPE booklet, "How to Break your War Production Bottleneck".

Another booklet also available explains a method of speeding up production in the finishing room by using 3-M Abrasive Belts and Segment Face Wheels with Backstand Idlers.

Please address Dept. MP 43, Minnesota Mining and Manufacturing Company, Saint Paul, Minnesota.



"SCOTCH" TAPE

TRADEMARK OF M. M. & M. CO.

MADE AND PATENTED IN U. S. A. BY

MINNESOTA MINING & MANUFACTURING CO.
SAINT PAUL MINNESOTA

Makers of **3-M** Products



"SCOTCH" TAPE waterproof seal for shell and identifies type of side.

Heavy Duty Dispenser, holds 2592" roll of "SCOTCH" TAPE in position for immediate use.

Official ARW stirrup pump, non-rubber hose pressure and water-proofed with "SCOTCH" TAPE.

GAIR BOXES DELIVER



PRECIOUS CARGOES

Gair is working *overtime* on containers for bullets, beans,
or bandages—in fact everything essential to win a war.

Containers packed with vital materials for the

Armed Forces must be right...Gair makes them



so that they will arrive at their secret destination—

WHOLE—DRY—PERFECT—and ready for action.

Robert Gair Company, Inc., New York—Toronto

Write for booklet showing photographic records of ocean submergence tests made by Gair to meet U. S. Quartermaster Specification No. OQMG-93, Navy Specification 53B11, Lend-Lease Specification FSC-1742-B and FXS-511.

FOLDING CARTONS • BOXBOARDS • FIBRE & CORRUGATED SHIPPING CONTAINERS

38 MODERN PACKAGING



Smooth...

CHAMPION *Kromekote**

Fast and smooth as a man on skis, glistening Kromekote glides into everyone's consciousness. Champion Kromekote provides a glorious party dress for candy, perfume, stationery, cosmetics, and other fine merchandise. Use it also for dazzling inserts, labels, menus, mailing cards, direct mail, greeting cards. Champion Kromekote is an exclusive, patented product, available in Label, Box Wrap, Litho, Postcard and Cover.



Printed on Champion Kromekote Cover—.010

The Champion Paper and Fibre Company ★ Hamilton, Ohio



*Kromekote is the registered trade-mark of The Champion Paper and Fibre Company's cast coated high finish paper.

after war...

WHAT?

It is not too early to think and plan for the time the big guns of business come back into play

War-won knowledge will bring many new products . . . better ways of making better things.

Packages, too, will have to keep pace. Will have to be more effective selling aids. Better designed. More practical. More economical.

Ritchie has learned much from the war. This

knowledge—this experience getting *better* packages for *less* cost—is yours to employ through Ritchie packaging engineers and designers.

Their services are offered without cost, without obligation, and without thought of gaining immediate business.

Plan for tomorrow's needs—today—with Ritchie.

W. C. *Ritchie* AND COMPANY
8843 BALTIMORE AVENUE • CHICAGO

SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

NEW YORK

DETROIT

LOS ANGELES

ST. LOUIS

MINNEAPOLIS

DENVER

MIAMI

APRIL • 1943

41



We salute the WAR-TIME PACKAGING EXPOSITION... and the manufacturers and users of packages whose indomitable spirit and ingenuity are continuing to overcome the handicaps and restrictions imposed on materials, equipment and personnel by the exigencies of worldwide conflict.

Our own technical staff and resources are, and have been, at the command of all whose packages undergo change, no matter how slight... to the end that the best adhesive for the particular purpose be recommended and made available. Your visit to our Booth Number 9 at the Exposition as well as to our suite at the Hotel Astor, from April 13th to 16th, is most cordially invited.

MANHATTAN PASTE & GLUE CO., INC.

Lion Brand Adhesives

Chicago
Philadelphia
Rochester
Boston
Cleveland

425 GREENPOINT AVENUE, BROOKLYN, N. Y.

Sewn Containers ...



...OFF TO WAR IN A BIG WAY!

That is the picture at the time of going to press. SEWN CONTAINERS for the protection of delicate pieces of ordnance, aircraft parts, and numerous other articles necessary to our gigantic war effort have taken the place temporarily of the majority of these attractive SEWN CONTAINERS for so-called luxury goods. They'll be back soon, we expect—better and more versatile than ever before.

To firms engaged in the manufacture of parts or complete units essential to our war program and requiring a protective wrapping we shall be pleased to submit samples and ideas if you will give us particulars.

Are you making plans for items for after-war production? Maybe SEWN CONTAINERS would supply the necessary sales appeal.

Cottonluxe
MANUFACTURING CO.
593 EAST 137TH STREET
NEW YORK, N. Y.



Built to Take Punishment

NO ONE coddles a collapsible tube! Hard-handed users squeeze and fold and squeeze again until it gives up the last portion of its contents, or until less sturdy tubes break down under the strain. No tolerance is given the product so unfortunate as to be packed in a defective or inferior tube. War's grim demand upon vital metals makes it more than ever necessary to choose collapsible tubes wisely. SHEFF-ALLOY Tubes, of the less critical metals . . . melted, tempered and toughened according to our exclusive "Sheffield Process" . . . are built to take punishment! . . . to give more protection than the product ever needs! And coupled with our big series of over 50 "VINICOTE" Inner Coatings, practically any product of proper consistency can now be packaged in these convenient, well-liked, tough containers.

NEW ENGLAND COLLAPSIBLE TUBE COMPANY

3132 SO. CANAL STREET, CHICAGO • NEW LONDON, CONN. • W. K. SHEFFIELD, 500 FIFTH AVENUE, NEW YORK
THE WILCO COMPANY, 6800 McKINLEY AVENUE, LOS ANGELES, CAL.

IT TOOK MORE THAN INK, PAPER AND GLUE TO WIN —



THE ONLY MAJOR PACKAGING AWARD IN THE TOBACCO PRODUCTS AND SMOKERS' ARTICLES GROUP

... it took patience, skill and every essential of quality craftsmanship, all carefully blended, to produce the Fleetwood Cigarette display—a major item in the Axton-Fisher Tobacco Company, Inc., award-winning display in the 12th Annual All-America Packaging competition.

The Latham Process Corporation is proud of the part it played in helping win this *only* packaging award in the tobacco products and smokers' articles

group. It typifies the friendly, helpful and cooperative spirit of this organization and its ability to get a job done—and done right—*before* the deadline.

Our skilled personnel is prepared to help you on your next printing job—whether it be letter-press or offset lithography—from the most simple black and white job to the complete production of multi-colored displays. We are prepared to advise what procedure will produce the most effective job.

Latham Process

C O R P O R A T I O N

200 HUDSON STREET • NEW YORK CITY



WORKING EACH DAY WITH "ANOTHER" WINNER!

... daily development and production of working cartons and packaging materials for

OUR WINNERS: The Army, Navy, Air Force, Marines, Lend-Lease and Civilian Defense.

... that's where our activities and experience are pointed; that's how we're keeping our name in the WIN column.

... and when our *biggest* job is successfully done—when the WAR IS WON UNCON-

DITIONALLY—we'll get back to full time creation of merchandising cartons and packaging material having the "pull value" they've always possessed to help you sell and display

your peacetime products.

ACE CARTON CORPORATION

5800 WEST 51ST STREET • CHICAGO, ILL.

OUR RESOURCES • • BONDS AND BRAINS • • ARE PLEDGED TO THE JOB

NY 888

Mr. Roy Troth, Dept #82
% Kimble Glass Co.
Vineland, New Jersey
U.S.A.

Rt. Charles J. Schoch
U.S. MC 1007 300 PM
San Francisco Calif
Wed Nov 4, 1942

Mr. Troth:

I saw something that would probably be of some interest to you. I happened to be over at the field hospital the other day & while I was there I saw one of the technicians using one of your 1ml pipettes. The straight pipette like Virginia graduates on the straight pipette machine. It seemed funny to see the old trade mark down here in the wilderness of Guadalcanal. I thought this would give you an idea of how Kimble's ware gets to some pretty remote places in this World.

I hope the people now realize that they're fighting a war & stop quibbling over small domestic matters.

Sincerely
Chick Schoch

Rt. Charles J. Schoch
V-MAIL

**Thanks,
Chick,
for
Letting
Us Know**

**Virginia is Proud of Her Part,
and We All Share Her Pride**

Kimble laboratory glassware and containers for plasma and vital drugs are serving our armed forces, even in the most remote places. Like this pipette, they carry the trade mark which symbolizes the Kimble slogan . . .

"KEEP 'EM LIVING"



The Visible Guarantee of Invisible Quality

KIMBLE GLASS COMPANY . . . VINELAND, N. J.

NEW YORK • CHICAGO • PHILADELPHIA • DETROIT • BOSTON • INDIANAPOLIS • SAN FRANCISCO

FOUND!

WANTED - THE ANSWER TO THE "TIN CAN" PROBLEM

Wanted-To Buy 88

BICYCLE-Wanted, with 26 inch

WANTED TRACTOR - Used; 30002, after Monday morning.

OLD GOLD-Jewelry, silver, dental gold, broken alarm clocks, radios.

Low priced new furniture bargains: 3 rooms furniture, \$199.50. Gessen Furniture Co., 335 W. Broad.

BED-Single mahogany

Household Articles 86

DRAPRIES, HEAVY BROCA

rent equipment, diamond sixth & Equipment Co., 129 E. Gay St.

WANTED-Counters, stools and restaurant equipment, china, glass, silver,

BARTON HEIGHTS-Business girl to share room, private home. 3-2553.

BARTON HEIGHTS-One single room, quiet home; business people. 7-1199.

BARTON HEIGHTS

Awards go to Reynolds for Flexible Metal Foil Container

On July 16, 1942, a new Era in packaging was born. On that date the Army specified a new type of protective pack- age. Months of testing had been completed, the search had ended . . . Reynolds new development was ready for one of the biggest jobs in history: delivering food and ammunition to our Fighting Forces all over the world.



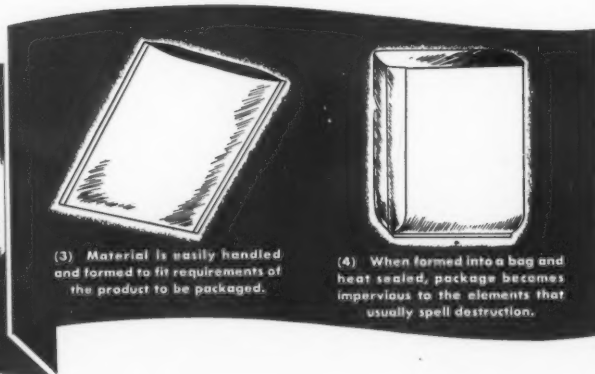
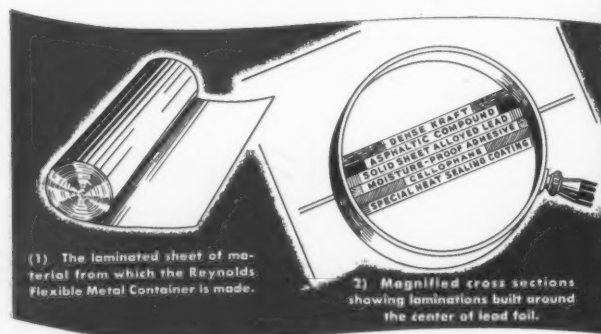
The above pictures ill- ustrate one feature of great importance to our boys fighting over seas— ease of opening. This convenience, as well as perfect protection, is one of the requirements of our armed force's K Ration Unit.



The package, which had taken so many months to develop has not the slightest look of glamour; in fact, it is a drab looking package. To the packaging industry, to Govern- ment Agencies, and to our armed forces overseas it means the answer to a tough and troublesome problem. It contains no steel, yet it gives protection against water, air, light, moisture-vapor, gases and insect infestation, and saves pre- cious shipping weight and space.

Very simply, it is an hermetically sealed, flexible metal container. Safely and firmly imbedded between layers of laminations, is a thin but sturdy sheet of composition metal foil, providing that all important protection which only metal can give, and without which the present development would not have been possible.

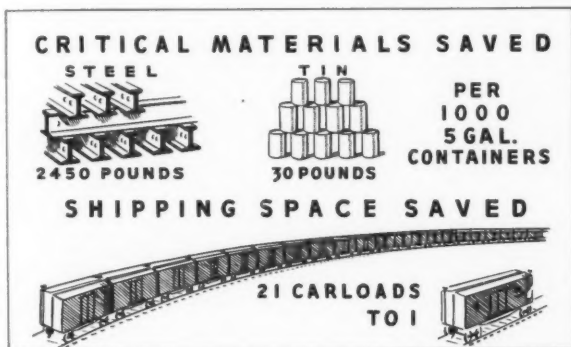
For many years metal foil has acted as a protective agent against the ravages of light, air, moisture, odors and infesta- tion. And Reynolds pioneering achievements in foil protected packages have become known the world over. The develop-



ment today, to meet wartime demands, is nothing more than a new application of an old principle. This is one of the great advantages of foil . . . its adaptability is unlimited . . . it can be applied to many problems of protection . . . from food to mechanical parts, from ammunition to sulfa drugs.

Of particular interest is its use in packaging ordnance equipment, including motor transport engine parts, in accordance with Method II as specified in joint Army and Navy regulations. A few examples of present wartime packaging uses are:

- | | |
|------------------------------------|-----------------------------------------|
| 1. Dehydrated Vegetables | 10. Moisture Proof Pouch For Cigarettes |
| 2. Dehydrated Soups | 11. Plaster of Paris (Canister) |
| 3. Macaroni And Spaghetti | 12. Dental Plaster (Canister) |
| 4. Life Boat Ration | 13. Carlisle Bandages |
| 5. Plaster of Paris Bandages | 14. Tannic Acid Jelly |
| 6. Sulfadiazine Tablets | 15. Photographic Film |
| 7. Lend Lease Dehydrated Soups | 16. First Aid Kits (Canister) |
| 8. Lend Lease Concentrated Cereals | 17. Fuzes |
| 9. K Ration | 18. Radio Parts |



AN APPRECIATION

This development throughout has been under the direction and in collaboration with the technical personnel of the Armed Forces.

The award given Reynolds Metals Company is a magnificent tribute to those individuals in Government Departments who often labor sixteen hours a day, seven days a week in helping solve many problems of vital interest to the War Effort. They receive no medals and far too little public recognition, but without their foresight, their perseverance and their untiring efforts, there would be no Victory.

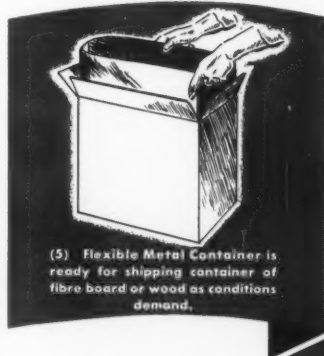
- | | |
|----------------------------------------------|---------------------------|
| 19. Dry Cells | 26. Chewing Gum |
| 20. Signal Mirrors | 27. Concentrated Pectin |
| 21. Automotive Parts | 28. Matches |
| 22. Tank Parts | 29. Cocoa |
| 23. Gun Parts | 30. Hard Candy |
| 24. Compass And Other Mechanical Instruments | 31. Disinfectant |
| 25. Ammunition | 32. Bibles For Life Boats |

Manufacturers who are not fully equipped with information on Reynolds "Flexible Metal Containers", are invited to contact Reynolds converters, some of whom have advertisements in this issue of Modern Packaging, or to write direct to Reynolds Metals Company at Richmond, Virginia.

REYNOLDS METALS COMPANY

FOIL DIVISION

GENERAL OFFICES: RICHMOND, VIRGINIA



TIN **HAS GONE TO WAR!**



"FLAV-O-TAINER" bags are made with heavy paper outside, and completely heat sealed Cellophane lining - an economical package for rations, chemicals, medical supplies, metal parts and other products requiring great protection against gain or loss of moisture.

MADE ONLY BY
THOMAS M ROYAL & CO
PHILADELPHIA U S A

We also manufacture a complete line of air-tight, moisture-proof bags - all sizes, styles and shapes - from Reynolds war-packaging material, glassine, cellophane, kraft and laminated specialties - with or without heat-sealing features.



Beetle CLOSURES ARE MEETING MANY VITAL NEEDS

To help solve the problems of packaging the contents of bottles and containers in food, drug, and chemical packaging, Beetle has developed many types of closures. The design and construction of these closures is based on the requirements of the user, and the type of closure is selected to meet the specific needs of the product.

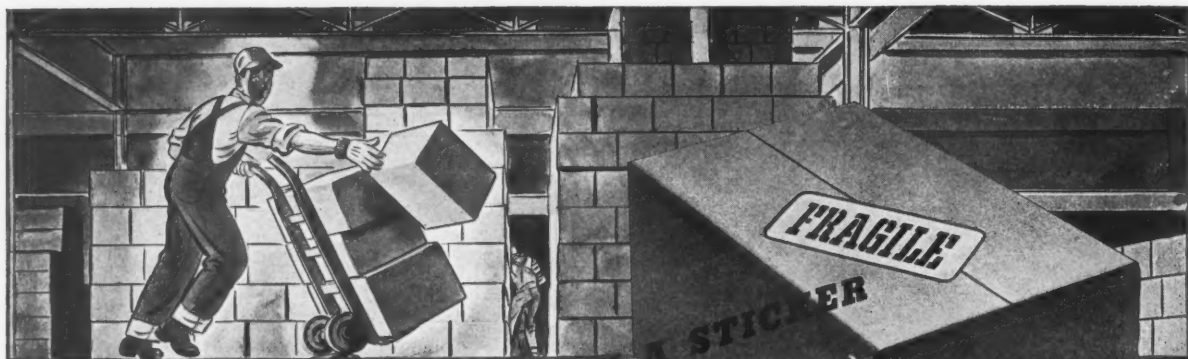
These are some of the many types of closures now available for your packaging needs. We will be glad to work with you in developing the most satisfactory and economical answer to your requirements.



AMERICAN CYANAMID COMPANY
PLASTICS DIVISION
24 ROCKEFELLER PLAZA • NEW YORK, N. Y.

THE PLASTIC THAT'S ALL COLOR...IN ALL COLORS

Beetle



IT TAKES MORE THAN

TO FIGHT A TON-MILE GIANT

IT TAKES strong, sturdy corrugated boxes to stand up under the pressure and pounding of doubled ton-mileage traffic. Boxes that take their part . . . and yours . . . when they're jostled and shoved and stepped on by Mr. R. R. Ton-mileage. Sure, this giant is rough and tough; he has his sleeves rolled up to win the war. But now, more than ever, he respects rugged corrugated packaging.

You will too. You'll respect it because it prevents unnecessary waste of man-power, machines, materials and time. You'll respect it because it's a practical cost-cutter. And, you'll be surprised to learn how economically corrugated boxes can be engineered to cushion the multiplied jolts of war-time shipping.

For an accurate cost estimate, get in touch with the H & D Package Laboratory. You'll welcome the overall savings it can show you.

Protect the Product

BETTER SEE **H&D** AUTHORITY ON PACKAGING

THERE'S A WORLD OF INFORMATION IN THESE FREE "TEXT-BOOKLETS"



Quick answers to shipping questions that pop up frequently; simple solutions to problems of distribution under any conditions—that's what you'll find in this "refresher course" in packaging. For free copies, write...

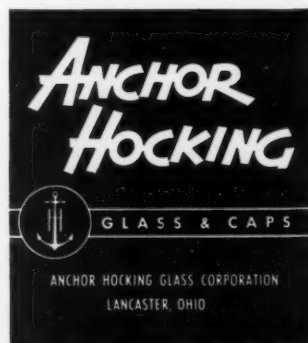
HINDE & DAUCH, Executive Offices:
4314 Decatur Street, Sandusky, Ohio

FACTORIES in Baltimore • Boston • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. • Hoboken • Kansas City • Lenoir, N. C. • Montreal • Richmond • St. Louis • Sandusky, Ohio • Toronto



*This is the package
designed for **PENNZOIL**
by **ANCHOR HOCKING**
that won the
MAJOR AWARD
in the Oil, Paints and
Varnishes Group*

● We at Anchor Hocking are mighty proud that our specially developed container and tamper-proof closure for motor oil has brought to The Pennzoil Company this cherished award. It is an outstanding example of the manner in which can-packed products may be converted to glass, easily and economically—and it is a package replete with sales and merchandising advantages.





When it rains . . . it pours in the Tropics



Salt—in uniform—is doing its part over there to promote health and fight fatigue.

Its uniform is a tight little paper envelope. A special pull-down flap reveals three shaker holes that transform the container into a perfect salt shaker for use in the field.

This U.S.E. protective package received a MAJOR AWARD in the Groceries Group of the All-America Package Competition . . . which is doubly gratifying because this is another U.S.E. product that is helping directly in our fight for Victory.

Have you a product to be packaged? Perhaps we can help you.

UNITED STATES ENVELOPE COMPANY
Container Division
SPRINGFIELD, MASSACHUSETTS

U*S*E *protective packaging*

Products of United States Envelope Company include TRANSPARENT CONTAINERS • MOISTURE-PROOF BAGS
ENVELOPES • WRITING PAPER • NOTE BOOKS • PAPER CUPS • TOILET TISSUE • PAPER TOWELS

ANOTHER PRIZE WINNER



Major Award, All-America Contest, for 3-Dimensional Display created and produced by us for Libbey-Owens-Ford Glass Company.

ALTHOUGH A GOOD PART OF
OUR EFFORT HAS BEEN DE
VOTED TO THE...
WORK WE HAVE NOT LOST
OUR TOUCH...
LIBBEY-OWENS-FORD GLASS
COMPANY



CREATIVE
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TRAILER TRUCKS
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(HYDRAULIC)

PORTABLE HAND ELEVATORS
PLATFORM POWER ELEVATORS
STACKING ELEVATORS

PORTABLE BELT CONVEYORS
STACKING CONVEYORS

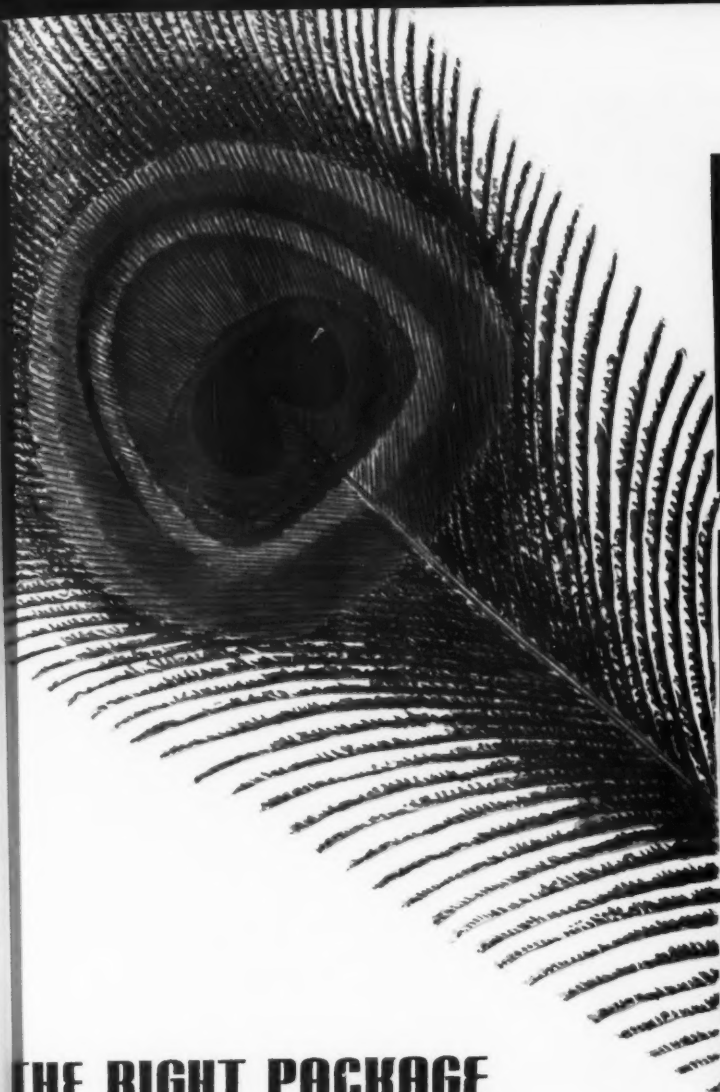
DUMP CARTS
TOTE BOXES

Illustrated Bulletins and Information Upon Request

Inquiries Invited

MERCER ENGINEERING WORKS, Inc.

30 CHURCH STREET, NEW YORK—Works: CLIFTON (ALLWOOD), NEW JERSEY



THE RIGHT PACKAGE

is *A Feather* IN YOUR CAP



Call On

LD DOMINION *Box* COMPANY

CHARLOTTE, NORTH CAROLINA
PLANTS IN SEVEN SOUTHERN CITIES

Shipping Cartons • Set-Up Boxes • Convolutes • Spiral Wound and Corrugated Containers
PACKAGING THAT SAVES CRITICAL MATERIALS FOR THE NATION



*Sylvania**



VICTORY FIRST

Sylvania* Cellophane, so well known for the protection it gives to perishables, is now being used in increasing quantity for many new and very important military requirements. Sylvania* Cellophane is being produced as before, and when Victory comes it will again be yours to use and enjoy.

Cellophane

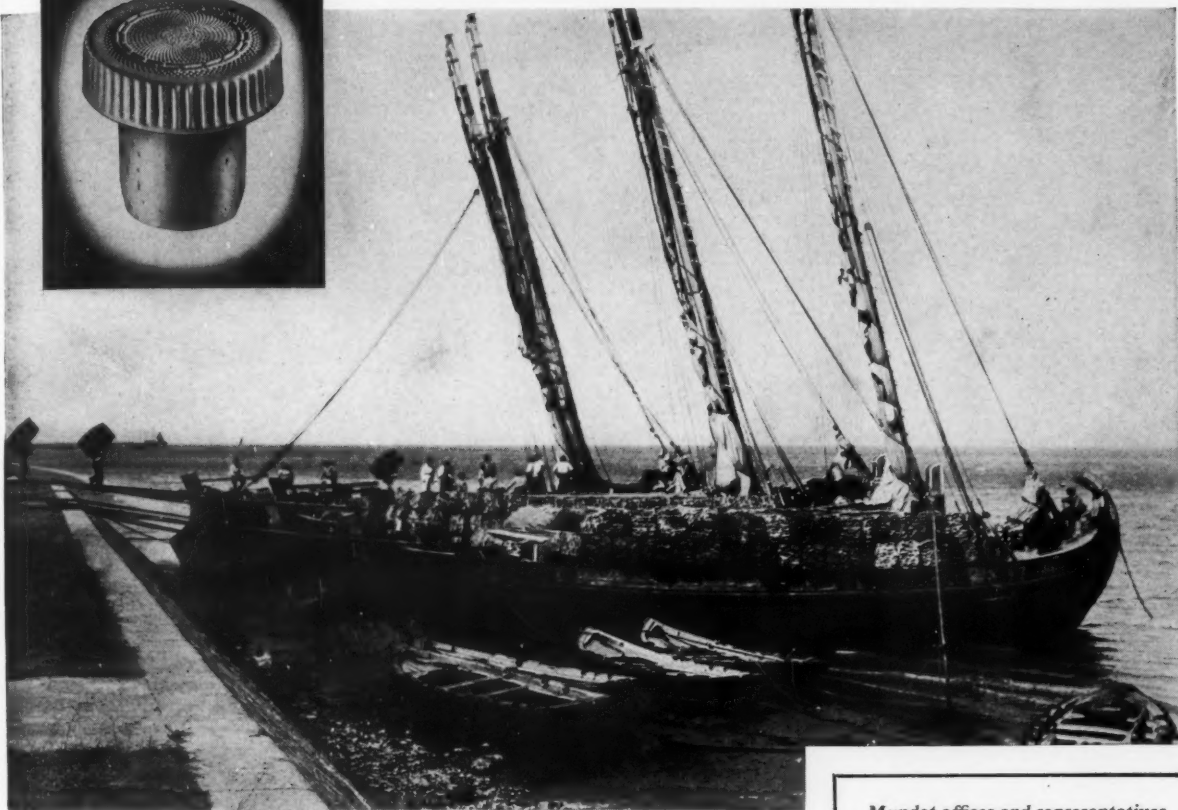
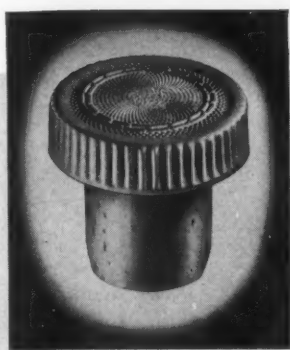
SYLVANIA INDUSTRIAL CORPORATION
 General Sales Offices: 122 E. 42nd Street, New York City
 Works and Principal Offices: Fredericksburg, Va.

We of Sylvania Cellophane are proud of our Army-Navy "E" pennant . . . and the responsibility attached to our keeping it flying!*



Reg. U. S. Pat. Off.

CORK • FOR SAFETY IN SEALING



DOWN TO THE SEA! Raw, baled cork being loaded on small sailing vessels, in Portugal. Cork is transported by many methods before it finally reaches our factories.

MUNDET CORK CLOSURES insure the utmost safety for glass-packed products. For this purpose we have maintained our representatives in the cork growing centers of the world for over 75 years, to select and grade the best of each season's "stripping" for use in Mundet Closures.

From the bales of raw cork that enter our factories, to the finished closures, boxed and ready for shipment, every step of manufacture is controlled by experienced hands—aided by modern machines that insure the most dependable sealing qualities in Mundet Cork Closures.

Mundet offices and representatives are conveniently located:

ATLANTA
339-41 Elizabeth Street, N.E.
BROOKLYN
65 South Eleventh Street
CHICAGO
135 West 63rd Street
CINCINNATI
427 West 4th Street
CLEVELAND
Britten Terminal, Inc.
DALLAS
505 Southland Annex
DENVER
The Stone-Hall Co.
DETROIT
335 West Jefferson Avenue
HOUSTON
Commerce and Palmer Streets
JACKSONVILLE, FLA.
Laney & Delcher Warehouse
KANSAS CITY, MO.
1428 St. Louis Avenue
LOS ANGELES
1850 North Main Street
LOUISVILLE
Kentucky Bottlers Supply Co.
MEMPHIS
Memphis Bonded Warehouse
NEW ORLEANS
432 North Peters Street
PHILADELPHIA
856 N. 48th Street
ST. LOUIS
2415 South Third Street
SAN FRANCISCO
440 Brannan Street
In Canada:
Mundet Cork & Insulation, Ltd.
35 Booth Avenue, Toronto

Mundet Cork Corporation,
Closure Division, 65 S. 11th
St., Brooklyn, N. Y.

MUNDET

Closure Service

EMBOSSED-TOP CORKS • TAPERED CORKS • STRAIGHT CORKS • CROWNS

Packaging for War

★ ★ ★

Progress in packaging since the last war has been reflected in the use now being made of many peacetime packaging methods for the shipping and protection of war materials. One of the American contributions to protective packaging is Bostitching, and among the many applications of this quick fastening method are the following:

... Protective packaging of shells reduces dispersion of artillery fire... grommets especially designed for Bostitching guard rotating bands from damage, thus contributing to accuracy of fire.

... Many types of ammunition are shipped in the same type of carton normally used by drug and food items... bomb fins, for example, are put up in cartons sealed by Bostitching... also small shells, fuses, other ordnance parts.

... The scabbard — a bayonet's "protective packaging" — has also been improved... is now made of plastics, almost entirely a between-the-wars development... and Bostitching speeds its assembly.

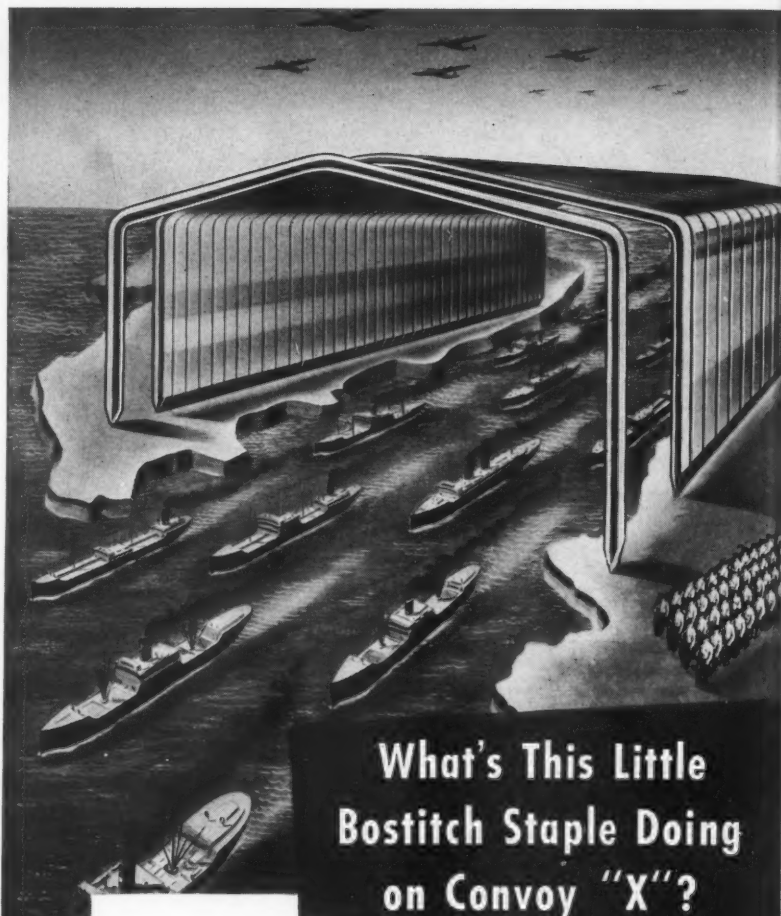
... Decontamination bags (packages for safe removal of gassed clothing, etc.) have tie-tapes which are attached with Bostitching.

... Carrying cases for gas masks have Bostitched plastic forms to keep the masks in shape.

... A wartime packaging problem is to eliminate a principal peacetime objective — *visibility*... Bostitching is used in manufacturing and often in erecting camouflage nets to protect planes, guns, personnel.

In these and many other ways, Bostitching is at war. Purely civilian applications have been sacrificed... yet those manufacturers who have been forced to fasten by other means, will be gratified to know that war uses have greatly increased the scope of Bostitching, resulting in the development of new machinery, new techniques, which will prove profitable to post-war packaging.

ADVERTISEMENT



What's This Little Bostitch Staple Doing on Convoy "X"?

THE CARGO bristles with Bostitching (machine-applied stapling) drafted for the war... for SPEED!

Bostitch has followed the war, and the Bostitch machines that were used to give sales appeal, protection and economy to peacetime packaging, are now doing war work... packaging materials needed in the war... other fastening jobs for which Bostitching has many advantages... applications newly created for war purposes or regularly used on civilian products now enrolled in war service.

To meet these challenges, new and improved Bostitch tools are constantly being created, and will be available for peacetime use. The Bostitch line, unrivalled in its completeness, makes it possible for you to choose the right combination of machine and staple for each particular job.

If you have the necessary priorities, find out *now* if Bostitching can help speed your production... if priorities are not available, investigate Bostitching *now* so that you can apply these advantages

and improvements to quick post-war adjustments and production.

Bostitch (Boston Wire Stitcher Company)
49 Duane Street, East
Greenwich, R. I.
(Bostitch-Canada, Ltd.,
Montreal).

BOSTITCH
AND FASTER
fastens it better, with wire

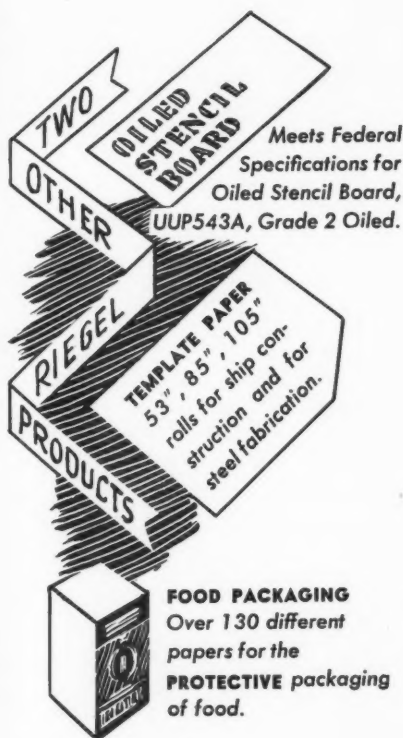
ALL TYPES OF STAPLES APPLIED BY MACHINES
ALL TYPES OF MACHINES FOR APPLYING STAPLES



MOTORIZED STAPLER 1 of the 800

When Food
is Shipped to

SHANGRI-LA



Today, few food packers know where and when their product will be used. Lend-lease and military requirements call for complicated packaging of new forms of food for delivery to many Shangri-Las. This revolution in packaging methods must be accomplished quickly and with a minimum of strategic materials.

We are helping to do this through the application of time-tested papers and combinations of packaging materials of known values, or through the development of new papers where necessary.

WE BELIEVE WE CAN HELP YOU to solve almost any paper problem. Our four mills make over 230 different grades for packaging, printing, converting and special industrial use—papers that have been tested, approved and adopted in all fields. If we cannot help you, we will be glad to refer you to someone else who can. Write us your requirements.

342 MADISON AVENUE • NEW YORK, N. Y.

RIEGEL PAPER CORPORATION

78A

AWARD WINNER

IN ALL-AMERICAN PACKAGE COMPETITION



A New Victory Package

Created by War-Time Packaging Headquarters

Sanitape-Sealtite

Actually This New Package is a Double Winner—First, because it was accorded a major award in the All-American Package Competition and—Second, because it replaces the old metal container and conserves critical, war-time material. Every requirement of good packaging is included in this new Multi-Unit Sealtite Catch-Cover Package—Complete protection from dirt, moisture and breakage—Convenience in carrying and dispensing—Maintained efficacy—Attractive appearance. And this has been accomplished without the use of crucial materials. . . . Our organization offers important advantages to those who face packaging problems today—long and specialized experience in the creation of ingenious units, made from a variety of paper products, together with a large, modern Contract Packaging Division which relieves you of every detail. We invite your inquiry.



IVERS • LEE COMPANY • NEWARK • N • J

PACKAGES, METHODS AND MACHINERY FULLY COVERED BY U. S. AND FOREIGN PATENTS.



Perhaps We Can Help YOU, Too!

American ingenuity is helping to solve many of the packaging problems created by wartime restrictions and regulations. New materials, new methods, new processes are being developed constantly to facilitate continued distribution of nationally-known products.

More than that, careful planning and designing make it possible for the new wartime package to retain familiar recognition features . . . such as brand name,

trade-mark and quality appeal *in their established colors* . . . even though the style or shape of the package has been changed.

Retaining brand identity is important. Your reputation for high quality will soon be forgotten . . . your goodwill and prestige will be sacrificed . . . if your established brand identity is discarded, even temporarily.

If you are confronted with a packaging change-over . . . if you are wondering how you can still market your product in familiar dress, call on Stecher-Traung.

As one of the world's largest producers of packaging materials, we invite you to take advantage of our many services. And, as leaders in the field of Full Color Lithography, we offer you the benefits of experience, skill and ability to produce quality packaging materials in sparkling full color, at surprisingly modest cost. Write us today.

FREE!

Our 28-page book — "The Value and Patriotic Use of Full Color" tells how to get beautiful results at low cost. Write today for your free copy.



For over 75 years—headquarters for high-quality, colorful, lithographed labels, box wraps, packets, folding boxes, cartons, merchandise cards and envelopes, displays and advertising materials.

Contractors to the Government—War Work Comes First!

STECHE-TRAUNG

LITHOGRAPH CORPORATION

Rochester, N. Y.

San Francisco, Calif.

Offices in Principal Cities



Convert to the
SET-UP PAPER BOX
—today's most quickly
available package

Many war-time packagers have been quick to see the advantages of the set-up paper box. Rigid, ready to use, it loads faster . . . reduces the overall costs of packaging by its saving in packaging time alone! And the set-up box gives extra protection to vital products in transit . . . delivers them with greater safety to the point of Sale or point of Use . . . conserves the ma-

terials and manpower that go into their production.

Why not investigate *all* the advantages of today's most adaptable package—including the many protective papers with which it can be covered? You are invited to reverse the 'phone charges to the nearest Master Craftsman listed below. Your inquiry will bring prompt information and service.

BALTIMORE, MD.
Maryland Paper Box Co.
BOSTON, MASS.
Bicknell & Fuller Paper
Box Co.

BROOKLYN, N. Y.
Specialty Paper Box Co.
E. J. Trum Co., Inc.

BUFFALO, N. Y.
Thoma Paper Box Co.

CHATTANOOGA, TENN.
Atlas Paper Box Co.

CHICAGO, ILL.
Kroeck Paper Box Co.

COLUMBUS, OHIO
Columbus Paper Box Co.

DANVERS, MASS.
Friend Paper Box Co.

DETROIT, MICH.
Stecker Paper Box Co.

HARRISBURG, PA.
The McClintock Corp.

KANSAS CITY, MO.
Crook Paper Box Co.

LOUISVILLE, KY.
Finger Paper Box Co.
Kentucky Paper Box Co.

MERIDEN, CONN.
Shaw Paper Box Co.

NASHVILLE, TENN.
American Tri-State Paper
Box Co.

NEWARK, N. J.
Mooney & Mooney
Newark Paper Box Co.

NEW YORK, N. Y.
A. Dorfman Co., Inc.

PAWTUCKET, R. I.
Shaw Paper Box Co.

PHILADELPHIA, PA.
Datz Mfg. Co.
Walter P. Miller Co., Inc.
Royal Pioneer Paper Box Co.
Edwin J. Schoettle Co.
George H. Snyder, Inc.
Sprowles & Allen

PORTLAND, ME.
Casco Paper Box Co.

PROVIDENCE, R. I.
Hope Paper Box Co.
Taylor Paper Box Co.

SEATTLE, WASH.
Union Paper Box Mfg. Co.

SOMERVILLE, MASS.
Consolidated Paper Box Co.

ST. JOSEPH, MICH.
Williams Bros.

ST. LOUIS, MO.
Great Western Paper Box
Co.

Moser Paper Box Co.
F. J. Schleicher Paper Box Co.
Service Paper Box Co.

UTICA, N. Y.
Utica Box Co., Inc.

WILMINGTON, DEL.
Wilmington Paper Box Co.

COOPERATING SUPPLIERS:

Appleton Coated Paper Company; Blackstone Glazed Paper Company; Bradner Smith & Co.; Louis Dejonge & Company; Globe Manufacturing Co.; Hampden Glazed Paper and Card Company; Hartford City Paper Co.; Hazen Paper Company; Holyoke Card and Paper Co.; Holyoke Coated & Printed

Paper Co.; Hughes and Hoffman; Lachman-Novasel Paper Company; Marvellum Company; Matthias Paper Corporation; Nashua Gummed and Coated Paper Company; Pejepsco Paper Co.; Plastic Coating Corp.; Racquette River Paper Company; Riegel Paper Corporation; Stokes and Smith Co.



Master Craftsman of the SET-UP PAPER BOX INDUSTRY
ROOM 1106, LIBERTY TRUST BUILDING, PHILADELPHIA, PA.

The "NEW ORDER" of packaging requires Labels that Seal, Sell and Stand Up

☆ COSMETICS AND TOILETRIES GROUP
Award ☆ 12th ALL-AMERICA PACKAGE COMPETITION
☆ COLGATE-PALMOLIVE-PEET CO.

IN the converted containers which form an ever-increasing majority of present packages, labels must be more than attractive. They must have the full protective features of the package itself. They play an important part in conserving the contents.

On the unique Colgate Tooth Powder packages, for instance, National labels are not only attractive and accurately die-cut to fit the cone-shaped containers. They are also printed on specially alkali-resistant paper and coated to resist moisture. They sell, seal and stand-up under the same conditions which the former metal can had to resist. To make your package transition easier, consult a label manufacturer who offers attractiveness-plus-protection.



National Label Company

Philadelphia, Penn.

NEW YORK ☆ CHICAGO ☆ BOSTON

SAFE CONVOY



IT IS OUR BUSINESS to provide safe passage for your merchandise to the consumer. Day in and day out, Morris craftsmen are at your service in developing ideas to protect products and meet packaging and merchandising requirements.

No matter what your paper package needs may be, you can depend on Morris Paper Mills for friendly cooperation in finding the answer. Write for details today.

Creators of
Counter Displays
Folding Cartons
Cracker Caddies
Frame-View Display Boxes
Millinery Boxes
Garment Boxes
Cake Boxes
Paper Cans for Bulk Ice Cream
Beverage Carriers
Merchandising Aids

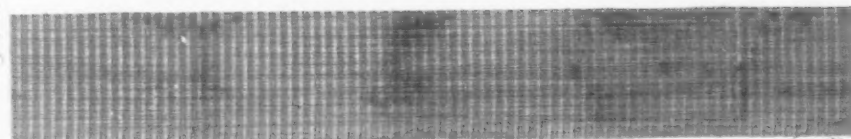
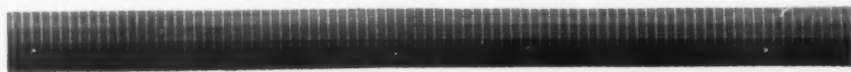
MORRIS PAPER MILLS

135 South La Salle Street, Chicago, Illinois

MORE FOR YOUR MONEY IN PROTECTION AND MERCHANDISING

Morris
FOLDING BOXES
AND CARTONS

Gay as
the flowers that bloom
in the Spring"



Ribbonette!
REG. U. S. PAT. OFF.

SEND FOR SAMPLES — THERE ARE COLORS
AND PATTERNS FOR EVERY SEASON

CHICAGO PRINTED STRING CO.

2300 LOGAN BLVD.
CHICAGO, ILL.

225 FIFTH AVE
NEW YORK, N.Y.

CELLUPLASTIC

has **ALL FOUR** packaging essentials:

- ★ PROTECTION
- ★ VISIBILITY
- ★ EYE-APPEAL
- ★ ECONOMY

and YOU CAN'T GET *ALL FOUR* IN ANY OTHER TYPE OF TRANSPARENT CONTAINER. Because Celluplastic containers are *seamless* and *shatterproof*, with lustrous transparency, and labeling processed directly ON the containers; saving both labels *and* labeling operations. Our designing staff is at your service; samples are available. *Write for them!*



HYCOLOID-CLEARSITE

CELLUPLASTIC CORPORATION

EXTRUSION AND INJECTION MOLDERS

60 AVENUE L

NEWARK, N. J.



NATIONAL FOLDING BOX COMPANY

MAIN OFFICE, HILLS AND FACTORY, NEW HAVEN, CONNECTICUT
CHRYSLER BUILDING, 405 LEXINGTON AVE., NEW YORK

April 5, 1943

WALTON D. LYNCH
Vice President

A MOST SINCERE THANK-YOU!

THE FOLDING PAPER BOX COMPETITION, sponsored by our Association and held in connection with our Annual Meeting in Chicago on March 4th has passed into history, yet I am confident its benefits will become increasingly apparent as the war progresses.

When I first proposed this Competition, as a tangible means of showing what our industry was doing to actively support the war effort I knew I could count on your support. Yet your participation far exceeded my fondest expectations.

While our industry was not equipped to manufacture war planes, guns, tanks and cannon yet through the development of these hundreds of "conversion packages" we have all done our part, conserving thousands of tons of critically needed metals and other materials needed for the war effort as well as expediting the swift and safe delivery of thousands of different kinds of direct war materials to the battle fronts of this world conflict.

In the days to come, as manufacturers and Government officials view these "conversion packages", at the offices of our Association, they will value anew the contributions we have made to the war effort. Having made this start, let us press forward to even greater accomplishments during 1943.

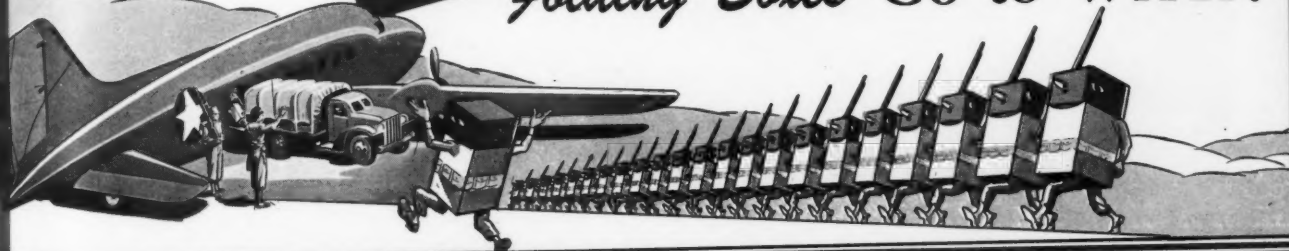
To all of you in the North, East, South, mid-West and the Pacific Coast a most sincere thank you for your splendid help.

Yours cordially
Walton D. Lynch
Vice President
NATIONAL FOLDING BOX COMPANY

WDLynch:hbl



Folding Boxes Go to WAR!



HERE COMES ANOTHER 20,000,000 *WAR WORKERS!*

Right off the presses, ready to perform their duty dependably and unflinchingly; a function as important as the front line. For without these closures, necessary foods would perish, vital drugs become contaminated, strategic chemicals assume impotency.

Yet, the value of molded closures does not end merely with utility. Tons of precious metals are routed to the war effort by the elimination of metal from cap and closure applications.

In the post-war era, we'll talk about the beauty, finish and lustre, too, of MACK molded closures. How their high quality, excellence of design and low cost are prime requisites in civilian marketing; how they reduce sales resistance.

Right now, though, we want to emphasize the part played by MACK closures — millions of them—in helping to win this war. Inquiries should be addressed to Mack Molding Company, 132 Main Street, Wayne, New Jersey.



Mack
**MOLDED
EXCELLENCE**

SALES OFFICES: NEW YORK CITY, CHICAGO, DETROIT,



INDIANAPOLIS, BOSTON & ST. LOUIS

Head of the Class

ANOTHER PRIZE WINNER WITH "CEL-O-SEAL" PROTECTION



ONCE again judges of the All-America Package Competition have picked winners with protective "CEL-O-SEAL" Bands. These smart-looking Gum Turpentine bottles took first place in their class... the Oil, Paint and Varnish group.

"CEL-O-SEAL" cellulose Bands are easily applied. They add to the attractive appearance of the package. But more important than that in these times, they guard the product against evaporation, deterioration, leakage or tampering. They do this by keeping the closure firmly in place. "Accept no substitute," declares the label on these bottles. And "CEL-O-SEAL" Bands assure both the manufacturer and the buyer that there is very little likelihood of substitution, for "CEL-O-SEAL" Bands have never been counterfeited.

In addition to protecting the contents of the package, these bands also serve as attractive second labels that add real sales appeal and effectively advertise the product. Write for illustrated brochure.

Sold by

E. I. DU PONT DE NEMOURS & CO. (INC.)
"CEL-O-SEAL" SECTION
Empire State Building, N. Y. C.

ARMSTRONG CORK COMPANY
GLASS & CLOSURE DIV., Lancaster, Pa.

I. F. SCHNIER COMPANY
683-89 Bryant Street, San Francisco, Cal.



CEL-O-SEAL
TRADE MARK
BANDS

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

APRIL • 1943 71

Bemis Multiwall Paper Bags

ARE HIGH IN STRENGTH . . . LOW IN COST

If you're looking for immediate delivery of low-cost shipping bags with extra strength to deliver your product safely to the job, let us hear from you.

Bemis Multiwall Bags have what it takes in your industry. They reduce shipping and handling damage because Bemis specifications for paper strength exceed, not just equal, Consolidated Freight Classification requirements. This extra strength keeps your produc-

tion line moving, too, by reducing breakage.

Bemis Multiwall Paper Bag factories are located strategically to give you quick service. On unusually large orders or in an emergency more than one plant will go into production for you if necessary.

Why not talk over your multiwall bag needs with us? Let us show you what we honestly believe is the best multiwall bag built. Let us prove that Bemis service is unexcelled.



Today, with freight cars and trucks loaded to capacity, with handling faster, rougher, harder on containers, the extra strength of Bemis Multiwall Bags is more important than ever.

BEMIS BRO. BAG CO.

East Pepperell, Mass. • Peoria, Ill. • San Francisco, Calif.
Wilmington, Calif. • St. Helens, Oregon

Baltimore • Boston • Brooklyn
Buffalo • Charlotte • Chicago
Denver • Detroit • Houston
Orleans • New York City • Norfolk



Indianapolis • Kansas City
Los Angeles • Louisville • Mem-
phis • Minneapolis • New
Omaha • St. Louis
Salina • Salt Lake City • Seattle • Wichita

IT PAYS TO TALK TO THE BEMIS MULTIWALL PAPER BAG EXPERT

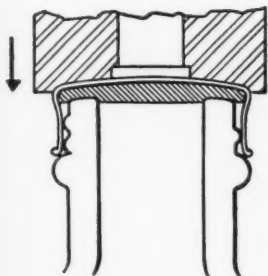
Whether your problem is one of bags, packing methods or machines, storage or shipping, the counsel of Bemis experts is yours for the asking. Often these men show bag users how to increase production and cut costs in the packing room.



This is
SKULL INSURANCE

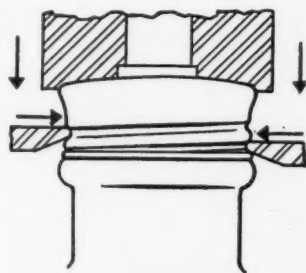
Packaging Insurance

HERE'S WHY YOU GET "PACKAGING INSURANCE" BY THE ROLLED-ON METHOD OF SEALING



1. Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is embedded in liner evenly all around.

2. While held in that position, threads are Rolled-On to conform exactly to threads on container. Each seal is tailor-made, fits perfectly.



Trade Mark Reg.  U. S. Pat. Off.

TAILOR-MADE

SOMETHING TO THINK ABOUT

Aluminum is now cheaper than ever. After the war it will be available to everyone in great abundance. It might be profitable for you and Alseco to get together now to do some Imagineering about your postwar packages and about new ways of sealing them with aluminum.

ALSECO SEALS

ALUMINUM SEAL COMPANY, 1345 THIRD AVENUE, NEW KENSINGTON, PA. . . At your service: 29 years of experience building quality seals and sealing machines.

APRIL • 1943

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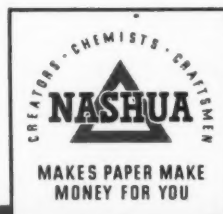
SPECIAL ALL-AMERICAN AWARD



ALMOST OVERNIGHT THE TIN CAN BECOMES A PAPER BOX

In their own right these containers are practical, substantial and beautiful. Great ingenuity has been shown in their creation — metals essential to the war effort are replaced by paper. Paper and those who utilize it need not apologize for the missing metals — they have created containers of outstanding merit.

Special All-American Award to the F. N. Burt Co. for containers illustrated — Nashua's papers share in this accomplishment.



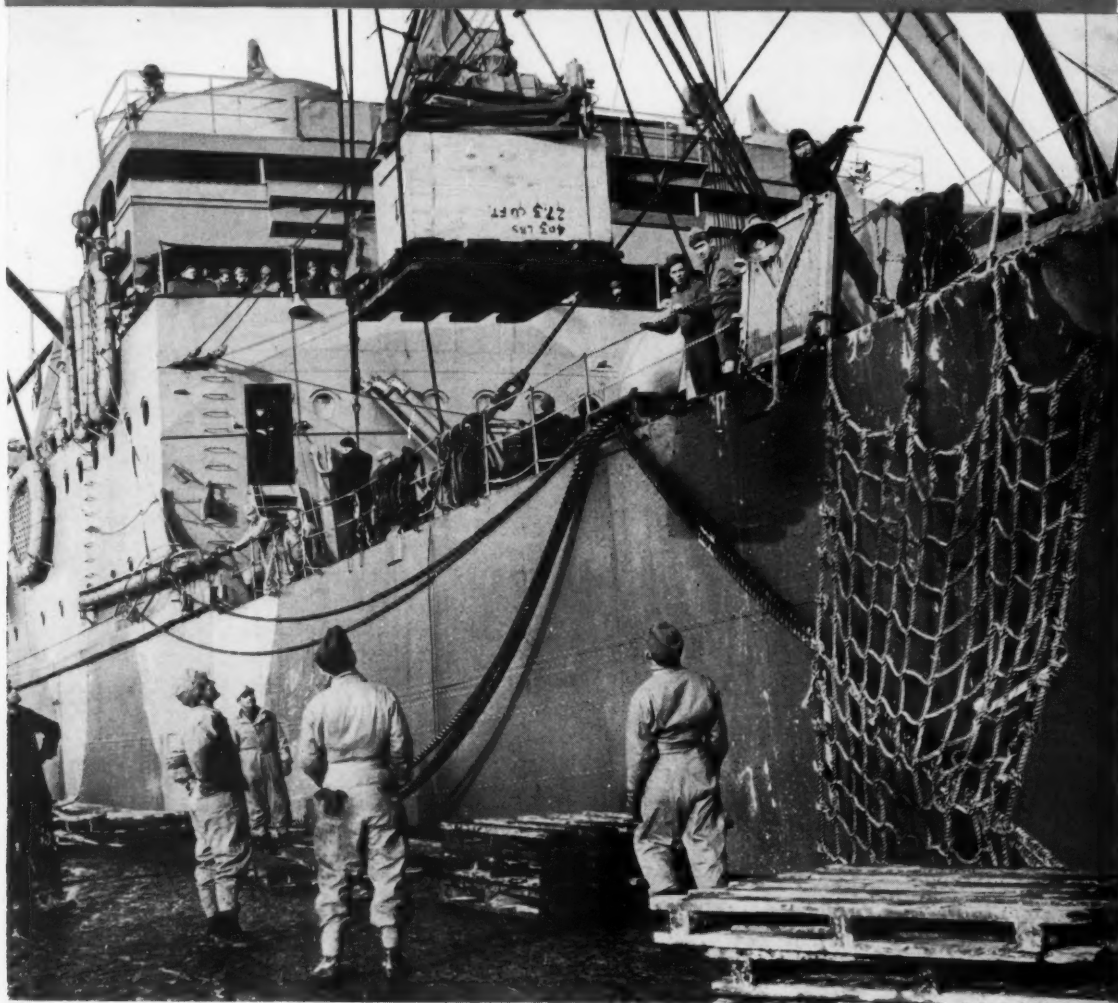
NASHUA GUMMED AND COATED PAPER COMPANY, NASHUA, N.

MODERN PACKAGING

APRIL 1943

VOLUME 16

NUMBER 8



OFFICIAL PHOTO, U. S. ARMY SIGNAL CORPS

American packaging is protecting cargoes for every part of the world.

Packaging Progress

If some archeologist of the future were to chance upon the collection of several thousand packages which comprised the 12th All-America Package Competition, he would be able to piece together fragments of information that would re-create today's history for him. He would note a preponderance of packages made of paper. He would see relatively few packages of metal. He would note almost a complete absence of rubber. He would observe ingenious makeshifts and clever substitutions. He would conclude that some kind of a world cataclysm had diverted twentieth century civiliza-

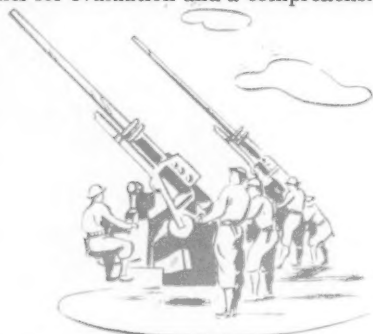
tion from its accustomed course. He would be right.

Packaging cuts such a complete cross section of every activity that in it can be read the story of the times and the 12th annual competition tells the story of the present war. It reveals the fact that strategic materials are being utilized for sterner purposes than to make the packages which have long been taken for granted. This competition also shows that the packaging field is going right on with its job in spite of shortages and has capably and cheerfully assumed added responsibilities of the war.

After all, the shortages include pretty nearly every-

thing. Make a list of the 30 or 40 basic raw materials which are used for packaging and you will find that they are all, without exception, under some form of restrictive order. Until comparatively recent weeks, paper has been an exception, but that is no longer the case. Now, even paper must be used carefully.

The reasons behind package changes make up the most interesting feature of the competition. This year, in marked contrast to previous competitions, almost nothing was said about sales appeal. Instead, the availability of materials seemed to be the paramount thought. Commonest conversions were from tin to glass, from foil to treated paper, from tin to bag-in-box. The stories of these conversions, as rapidly as they have become available, have appeared throughout the year in *Modern Packaging*. The competition served merely to bring them all together for evaluation and a comprehensive review.



As in previous competitions, the judges represented widely diversified points of view, but they were in unanimous agreement about the importance of functional packaging. They were insistent upon another point—namely, that the part played by the manufacturer of packages should be recognized in the awards. It didn't disturb them in the least that the classifications set up for the competition made no provision for awards to fabricators. These independent-minded judges simply disregarded those classifications and decreed that certain packagemakers had made signal contributions to packaging progress.

Analysis of the achievements of those package manufacturers confirms the wisdom of the judges. In every case the packages they produced serve highly useful purposes, make use of less critical materials and provide substitutes for metals now badly needed for other purposes. One of these companies is producing a 5-ply lamination, capable of such widely diversified use that it is insuring the safe delivery of bandages, emergency rations, dehydrated foods. Another, by means of the lamination and sealing of cellophane envelopes, has made possible the production and marketing of dehydrated soups—product and package both quite likely to outlive the emergency. A third company was granted a special award because of its development work in the field of bag making. One of its products is a paper bag, highly significant in view of the bur-

lap shortage, to hold sand and to withstand all the rough handling which such a bag must undergo. Another of their bags was constructed and lined to carry liquid asphalt. A fruit box, product of another special award winner, is conserving manpower because of its re-use possibilities. Made of fibreboard, reinforced with waste lumber, it collapses so that it may be sent back for further trips.

Serving what is, perhaps, the hardest hit of all package-using industries, the fifth special award winner is producing packages which are appearing on drug and toilet goods counters throughout the nation. Toilet goods manufacturers, no matter how necessary their products may be, obviously cannot be given top priority either for ingredients or packaging materials. In the past this industry has used immense quantities of metal for packaging purposes, but the new restrictions ruled that out. So it placed its problem squarely in the lap of its suppliers among the paper fabricators. The complete story is told elsewhere in this issue and the illustrations show an amazing variety of adaptations of paper: powder containers with sprinkler tops, lipstick cases of the swivel-type, rouge boxes, compacts for complexion powder. The company even makes paper caps for cream jars and for tobacco containers. One has but to give these various packages a cursory examination to be convinced that the award is richly deserved.

The machinery entries were approached in the same frame of mind. In all preceding competitions, awards had been made to the users of machines, not to the manufacturers, but this year was an exceptional year. Restrictive orders stopped dead in its tracks any new machinery development for civilian packaging and put a halt to new installations that had been the wonder and admiration of previous contests. Not only that, the personnel and productive capacity of machine manufacturers had been quite early enlisted in government service.

Despite those facts, there was no lack of machinery entries. The manufacturers, for the most part engaged in direct war work, were encouraged to make entries of the machines which they had developed to perform packaging operations in government arsenals. To be sure, many of these devices involved important military secrets, so that the full story cannot now be revealed. Package production men, however, will be keenly interested to learn how these machines have been adapted to perform for the Ordnance Department packaging operations which traditionally have been done by hand. One manufacturer, for example, adapted a labeling machine to label the cartons containing cartridges. Another machine makes use of a mechanical loader to sort cartridges and load them automatically in the spring clips at the rate of 750 cartridges per minute. Still another development is an automatic dipper by means of which two or more coatings of flexible wax

are applied to cartons containing emergency rations and small arms ammunition.

One most interesting development is a machine which loads fabric belts with machine gun cartridges. Formerly one operator, using a manually operated device, loaded four of these belts per hour. A machine was devised to meet certain essential requirements among which were the perfect alignment of the 250 cartridges in a belt to prevent jamming of the gun in use. Another requirement was that none of the pockets holding the bullets should be skipped and another was the proper distribution of the various types of cartridges—that is, so many tracers, so many armor piercing cartridges, etc., in the prescribed order in the belt. This machine, fully automatic except for the insertion of the belts, has increased the output to 15 belts per operator per hour.

The entire packaging field will applaud these awards. The manufacturers who received them are normally engaged in producing equipment which is of incalculable value in distributing more widely the good things of life; the same mechanical inventiveness which served that purpose has now been turned temporarily to the task of helping to rid the world of a scourge—and they are performing that task in an equally creditable manner.

From the foregoing, one thing is readily apparent: the standards for judging the All-America this year were different. They were not only different, they were much higher than ever before. The judges literally tore packages apart in order to determine the nature of materials, the structure, the strength and the fitness to do a job. Packagers of necessity had fewer materials to choose from. The overwhelming majority, as already indicated, were packages made of paper in some form or other. Out of the 33 awards, 24 involved the use of paper.

Paper alone, however, could only go so far. Scratch the surface of these paper packages and a whole new science of packaging stands revealed. It is obvious that relentless necessity has accelerated tremendously packaging progress. It is a commonplace to say that research scientists have been extraordinarily busy. That is perfectly true, but at least some of the forward steps have been made by "the boys in the back room" who have stumbled onto practical makeshifts by nothing more than cut-and-try methods. The objective of the researchers was to make paper, among other materials, do things that only metal had ever done before. Paper had to be treated to resist moisture-vapor, to resist gas, to withstand internal and external pressures, to be non-toxic but to retain product flavor. The 12th All-America demonstrates that these miracles were performed.

One method of accomplishing these difficult objectives was by means of coatings. For every successful coating material developed probably scores have been discarded. It is enough to say here that

lacquers, plastics, waxes and adhesives have all been applied to different kinds of paper in order to supply military and civilian needs for the protection of vital products.

To measure up to some of these performance requirements, often enough one thickness of a package material proved insufficient; consequently, package development engineers resorted to the use of as many as six filaments in laminated form, each one of which may have met only one requirement but the combination provided a sum total of characteristics equal to almost any task.

Similar progress has been made in heat sealing. The perfect package of tin could be vacuum sealed and soldered; the equally perfect glass package has a perfect seal when provided with an adequate closure and liner. Paper and cellulose sheeting must be coated with some type of thermoplastic or some effective special adhesive and then heat must be applied in order to form a seal. The 12th All-America Package Competition demonstrated by means of hundreds of heat-sealed packages that gratifying progress is being made in this direction.

The preponderance of paper packages should by no means be taken to indicate an absence of other materials. Glass packages were present in considerable numbers. The restrictive order on glass molds has resulted in a uniformity in the sizes and shapes of glass packages, but it is apparent that some, at least, of the new users of glass need to learn how to obtain interesting variety in appearance despite standardization. By way of contrast, one needs only to think of the wide variety in color and design shown by users of the familiar tin can. Cer-



tainly nothing could be more "standard" in shape than the tin package for canned foods.

Plastic packages for the most part are on leave of absence. These substances which do so much to contribute beauty of form and color as well as utility, are finding a thousand places on the battle front. The fabricators of those materials are acquiring a technique and a "know-how" which promises to be of future value in the field of packaging.

Although the emphasis of today's packaging is properly on function, by no means can it be said that design has gone into the discard. It is true that in a

period less marked by the strain of world struggle all men's minds turn more easily to considerations of beauty. Naturally, therefore, the only beauty about some of the prize-winning packages was that of perfection of utility. Nevertheless, the reader of the pages which follow will see unmistakable evidence pointing to the fact that package beauty is by no means forgotten. Even as we become inured to the struggle and regard stressful living as a matter of course, indications are that we will begin to think more in terms of good taste in design even when utility must be the first consideration.



It is true that sales appeal of package is not needed to help dispose of practically all products in today's market. Merchandise moves rapidly in most lines without the aid of a beautiful package, but with an eye to the future the judges very properly recognized beauty of design in at least three of the awards. They know full well that in no department of life can we let the appearance of things become utterly drab. Maintenance of cultural values is a responsibility which must be shared by all industry.

To get back to our friend the archeologist for a moment, there are a number of other points which he would pick up with keen interest. He would note many changes of product made solely because of a shortage of package materials. Baked beans, no longer permitted in tin, were cooked and frozen. The dried beans in a paper sack were packed in a carton which also contained a bottle of prepared tomato sauce. Spaghetti, formerly ready-to-eat after a brief warming up in its original tin, was specially processed and packaged in a paper carton ready for quick cooking. Another spaghetti product is a complete dinner in dehydrated form. Animal foods, forbidden tin, were changed in process and substance, dehydrated and presented in the form of cartoned meal. The packages required for these new developments fortunately were of time-tested type and readily available materials.

In reconstructing the history of today, our archeologist would not overlook some of the new products which were in evidence in the 12th competition. One was a package containing material to extinguish incendiary bombs; a number of new vitamin products in capsule or liquid form appeared. A vast quantity of dehydrated foods could be seen. A liquid preservative for automobile tires would bear mute testimony to the rubber shortage.

Packaging has made definite strides this year in

the face of difficulties and obstructions which it has never encountered before. It will be interesting to watch what becomes of some of these new materials and new forms of containers. On many of the entry blanks are to be found statements indicating that the new material is satisfactory enough to be retained. Sometimes the qualifying phrase is added, "for the duration." In other cases, packagers have been quite frank in labeling their substitute packages as temporary expedients. When the restrictions are removed and materials now scarce are available as before, will packaging machinery be reconverted and will the old types of packages return?

The answer to these questions depends first and foremost not merely on the adequacy of a container today but on how it stands the hazards of time, storage and handling; next, on the kind of service job performed by the fabricators of those packages as they supply materials to package users. It must not be forgotten that the makers of materials now scarce will come back into the market to compete for their share of business in the field of packaging.

When the lights come on again all over the world, it is safe to predict that there will be more packaging of all sorts of products than there has been in the past—and there will be better packaging. Easy to discern is a coming improvement in the convenience features of packages—features that make for surer sealing, easier opening, more convenient use, handier re-closing, more frequent re-use advantages.

One reason why we may look for improved packaging in the future is that packaging has never had a better opportunity than the present one to demonstrate its utility functions of protection and convenience for all kinds of products. That it is measuring up to that opportunity is made manifest by the 12th All-America Package Competition. Neither producer nor consumer will willingly relinquish these marked advances which have been brought to us by the spur of necessity.

For another thing, there will be a multitude of new materials and new forms of materials from which to choose the appropriate one for a specific task. The package designer will do a better job because he will have a greater selectivity. Concurrently, because of such a wealth of materials and their increased production, the inevitable economic trend of prices will be downward, so that this job of better packaging will be done cheaper.

The most powerful of all motive forces will be consumer demand. As soon as the conditions permit, consumers will throw off the controls and point systems to which they cheerfully submit now. They will demand more goods, in better packages—and will get them!

C. E. Browne

TWELFTH ANNUAL
*All-America
Package Competition*



BERN
HARD

MODERN PACKAGING
APRIL 1943



WILLIAM M. BRISTOL, JR.
Bristol-Myers Co.
Product Manufacturer



BESSIE BEATTY
Radio Commentator
Consumer Viewpoint



RAY M. SCHMITZ
Vice-Pres., General Foods Sales Co.
Package Production



LUCIAN BERNHARD
Industrial Designer
Design Principles

THE JUDGES

☆☆☆



STANDISH C. MARSH
The J. Walter Thompson Co.
Merchandising

The All-America judging was a tougher job than ever this year. Never in the history of packaging have so many changes been telescoped into one year as those brought about by the wartime materials situation.

Judges of the 12th All-America Package Competition were faced with problems which never confronted their predecessors. They faced those problems with independent minds. They did not hesitate to break tradition in cases where classifications did not provide awards for what they believed should have special recognition.

For example, awards have always been made in the past to users of packages, not to the makers of the packages. When this year's judges felt that the signal contributions were made by manufacturers of packages who developed replacement materials, they scratched traditional classifications and gave special awards to the companies whose tireless efforts have been responsible for these new packaging supplies and machinery.

Agreement of the judges on this point was cardinal in the light of the five viewpoints on packaging which each represented as an outstanding authority in his particular field: the product manufacturer, the consumer, the merchandiser, the package engineer, the designer.

Judging the All-America is a voluntary service. The judges take time from their own work to perform this service. To pick from the thousands of entries, the comparatively few cited for awards is a colossal task. Everyone who has an interest in packaging progress, directly or indirectly, is, therefore, greatly indebted to these five judges for their painstaking endeavor. To them our deep appreciation and our sincere thanks.

Award Winners

12th ANNUAL

ALL-AMERICA PACKAGE COMPETITION

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*All-America
Package Competition*



**F. N. BURT
CO., INC.**

While company presidents squirmed in their swivel chairs and production men tore their hair trying to figure out what they could use in place of metal, F. N. Burt Co., Inc., was quietly performing miracles with paper.

Early last summer, these miracles were presented to the public—paper compacts and swivel lipsticks for the cosmetics industry, paper dispensing cans for tooth powder and talcum and paper closures for cream jars and smoking tobacco containers.

This special award to F. N. Burt Co., Inc., is in recognition of an achievement that opened up a whole new line of thinking in packaging necessitated by war shortages.

The award is made on the basis of three distinct types of paper containers: a loose powder compact made for Avon Products, Inc.; lipsticks for Avon Products, Inc., and Oxzyn's Louis Philippe's Angelus Rouge Incarnate; containers for Dr. Lyon's tooth powder, manufactured (*Continued on page 138*)

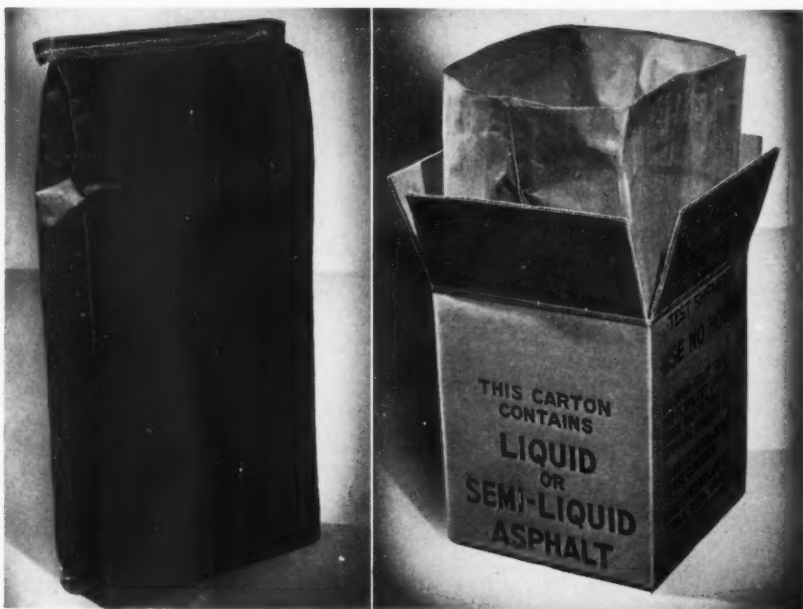


MODERN PACKAGING
APRIL 1943

Multiwall paper bags are among the developments in the present crisis which have allowed more and more strategic materials to move to the front lines of action in the form of guns, tanks, ships and planes. Paper bags for liquids have substituted for cans and drums. They have proved satisfactory when used in conjunction with a carton as the outside container. The combination has been found to be in some respects more economical than the former metal containers.

A bag used for liquid asphalt, oils, inks and paints is made of two sheets of kraft paper laminated together with a water-proof glue as the inside wall. The two outside walls are natural 50-lb. kraft for additional strength. Bottom of the bag is sewn and then dipped in a specially prepared wax. With the types of liquids to be packed, the construction of the bag varies and different combinations of paper are needed for the packaging of emulsions, oils, inks, paints, etc.

To form this liquid holding bag, it is slipped over a mandrel. Then the bottom seam is folded down with the two corners folded against the sides of the bag. The carton is slipped over the bag; the package is turned over and is ready to be filled with the product. Sealing the bag is effected either by sewing, gluing, stapling or a combination of these methods. After the product is sealed in the bag, the carton is sealed and the package is ready for market.



Already many thousands of these multiwall bags in cartons have been shipped, filled with a wide variety of liquid products and the general report is that they do not leak. They have been accepted in the State of California as shipping containers for liquids and for inter-state shipments.

Another multiwall bag which is fulfilling a need that did not exist before the war is the bag for sand—not the sandbag of peacetimes, but the bag filled with sand to be used for army, navy and civilian defense. These sandbags protect our armed forces, public and private property and should it become necessary, they will materially aid in the defense of our country.

They are economical in construction, are designed to hold 100 pounds of sand and to last for approximately three years under adverse outside weather conditions. To prevent moist sand from destroying the bags from within, they are made with an asphalt laminated sheet on the inside. The next three walls are of natural kraft paper for strength and the outside (*Continued on page 144*)

*All-America
Package Competition*



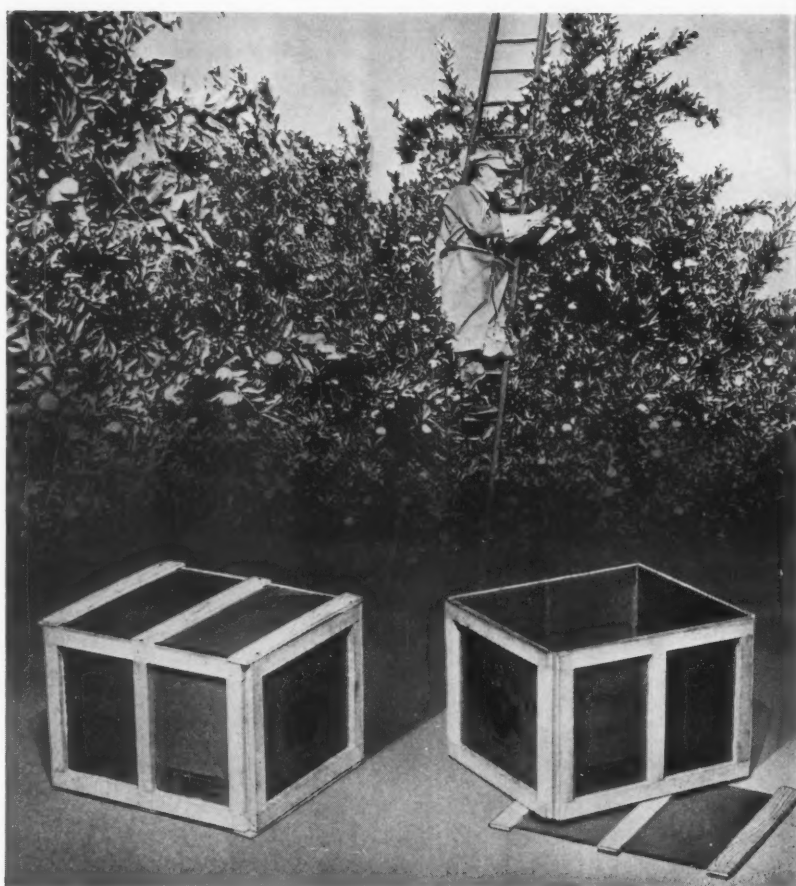
**BEMIS BRO.
BAG COMPANY**

MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**THE OHIO
BOXBOARD
COMPANY**



Four years of research and experiment by this mid-western paperboard and container manufacturer went into the development of an efficient, strong and durable shipping container for fresh fruit and vegetables. For many years, growers had been searching for a container that would give maximum protection to all kinds of fruits and vegetables and, at the same time, have strength enough to withstand commercial handling and cold storage.

It was difficult to think of packing produce in anything other than an all-wood case since growers and packers had, through the history of mass distribution of these products, become accustomed to this type of shipper. It had the required strength, which is one of the most important factors. But experience had shown that it often did not afford as much product protection as was needed. Bruised produce resulted in consequent loss to producer and distributor. Meanwhile considerable research and effort went into the making of all-paper shipping cases, but it was discovered, for the most part, that while protective, they did not have sufficient strength to withstand the rough handling they would receive nor would they be able to stand up under certain cold storage conditions.

The Ohio Boxboard Co. happily combined wood and paper in a container which has been steadily proving to be the sort of shipper that incorporates the important and desirable features, as well as reasonable cost, for which the fruit and vegetable industry has been looking. The wood gives the necessary strength to edges and corners, while the paper provides the protective qualities the fruit must have in transit and in storage. In addition, the case withstands satisfactorily the rigors and the moisture conditions incident to cold storage.

Neither caps nor liners are required for the container. It is cushioned on six sides so that shocks are absorbed by the walls (*Continued on page 144*)

MODERN PACKAGING
APRIL 1943

Richard Samuel Reynolds, president of Reynolds Metals Co., it is said, stands for "creative" as opposed to "negative" thinking—a combination of know-how and do-so. His mind is one that concentrates on the difficulties rather than the necessity of getting things done.

In that, perhaps, lies the formula for surmounting the difficulties of combining sheets of lead foil, kraft paper, bond paper, asphaltic sealers, cellophane and thermoplastic adhesives to make containers that replace the all-metal can. That achievement is Reynolds Metals' signal contribution to the packaging field in 1942.

War packages made from these new flexible and weather-proof materials are in daily use on battle fronts all over the world. Soldiers and civilians in war zones are being fed with dehydrated vegetables packed in 5-gal. Reynolds laminated bags-in-cartons. Fighting men light their fags with matches protected in water-proof match cases made from this foil-laminated material. Sulfa drugs are protected from moisture and gases in packets of the same material. Emergency rations in lifeboats are kept dry in 6-ply, heat-sealed, crimped-edge bags of foil laminated with kraft, glassine and asphaltic sealers. Plaster of paris bandages, used in emergency fracture treatment, are protected by this flexible material. Cans and canisters made of similar rigid material are also widely used by the military and lend-lease.

These are only a few of the hundreds of uses for this versatile packaging material in the war program. These hundreds of uses will test beyond a doubt the efficiency of a new material which bids fair to have many more uses in a peaceful world after the war is over.

(Continued on page 132)

*All-America
Package Competition*



**REYNOLDS
METALS CO.**



MODERN PACKAGING
APRIL 1943

*All America
Package Competition*



**SHELLMAR
PRODUCTS
COMPANY**



From kettle to can to paper-and-cellophane pouch—this is the story of soup. The convenient tin can superseded the old-fashioned simmering kettle on the back of the stove at home. Then along came the food technologists with the idea that soup could be reduced in bulk and packed in an entirely different way. Shellmar Products Co. came forth with a pouch style package of opaque laminated glassine which in turn was laminated to MSAT cellophane with special coating for heat sealing. It provided the answer to the soup manufacturer's desire for a convenient package that would hold the greases and fats contained in the soup, giving adequate moisture protection to the hygroscopic mix. At the same time, the pouch was a good medium from an advertising standpoint, since it was large enough to afford space for special brand design and sales messages.

The unavailability of cans for soups because of the war gave added impetus to the packaging of soup mixes in these pouches. Since they were designed to replace cans which, because of the water content of the soup, were fairly large and afforded good advertising space, manufacturers found that, since the pouches also allowed for advertising, there need be little fear that brand names would become lost. Lipton, Minute Man, Dainty, Rancho, Wilson, Royal Scarlet, Frazar and Premier are soup brand names that are to be seen on these striking and handy consumer packages.

Wilson, Royal Scarlet, Premier and Lipton have kept the same label designs that have for many years been known to the American people. "Wilson's certified" comes in orange and blue, Royal Scarlet in white and red with an old-fashioned servant carrying a steaming bowl of soup. Premier's white pouch has lettering in blue and gold and the Lipton package bears distinctive lettering. Rancho has a black background for the front of its envelope, across which there is a colorful strip showing a western ranch house and trees. Frazar, Dainty and Minute Man, each was able to emphasize the distinctive points of their trade marks on the package front. Though all the packages for all the brands are essentially the same size and shape, they are as distinguishable as to brand as the former cans. In a number of cases the broad front panel gives the consumer a better chance to recognize the various brand names and trade marks.

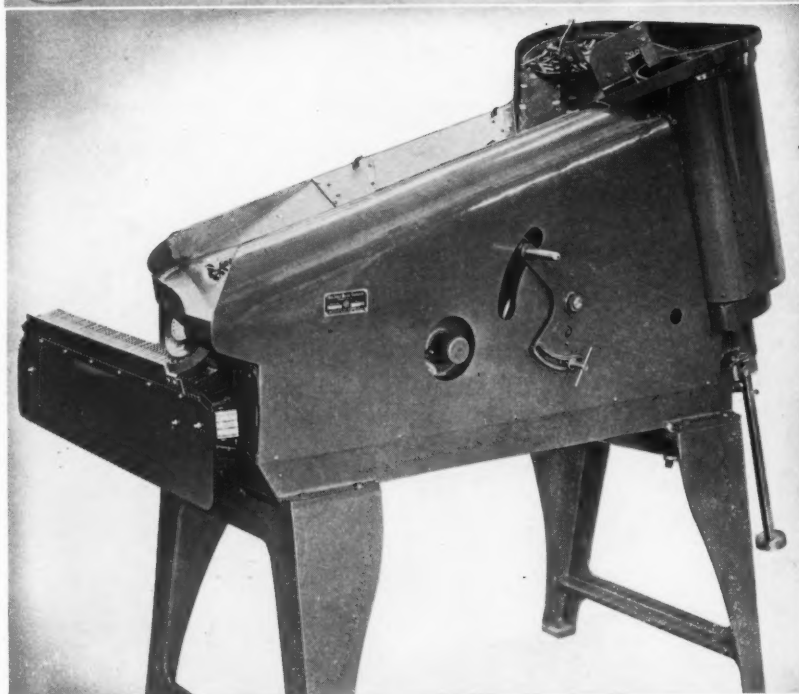
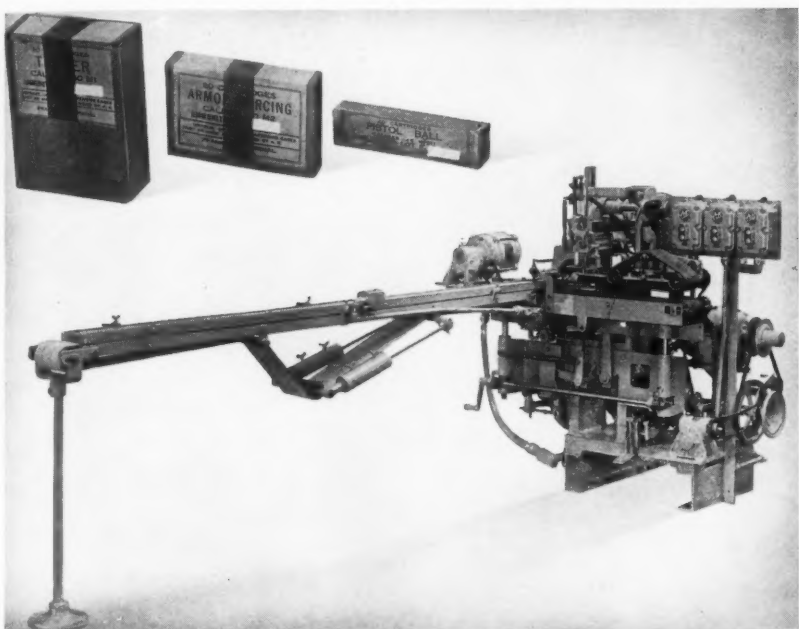
Somewhat different treatment has to be given the pouches in the way of display than that used for cans. Folding dispenser (*Continued on page 146*)

MODERN PACKAGING
APRIL 1943

In this war of men and machines, more and more machines must be devised that will release manpower for the active theatres of war, machines that will speed up the production line so that every one in the armed forces is given the weapons and the equipment with which to wage a winning battle. Of the number of new machines and methods which have grown out of war's necessities are four that are outstanding—one doubled the production capacity, another released seven men, a third increased production more than six times, and still another takes the place of a former manual line. These machines represent new methods of loading fabric machine-gun belts with cartridges, a method of handling for loading calibre .30 ammunition in standard boxes, a change in packing small arms ammunition, and improvement in labeling and sealing cartridge cartons.

(Continued on page 142)

(Above) Cartridge carton labeler. (Below) Box loader for calibre .30 cartridges.



*All-America
Package Competition*



**NEW JERSEY
MACHINE
CORP.**

MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



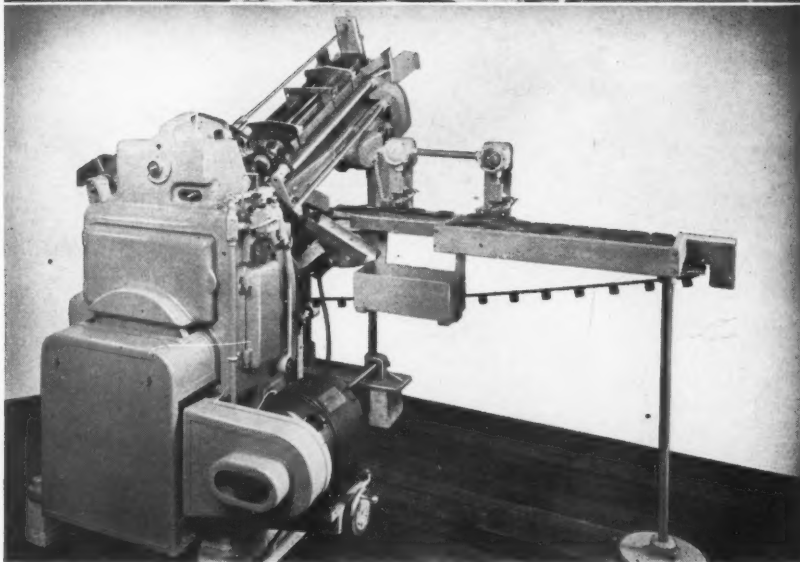
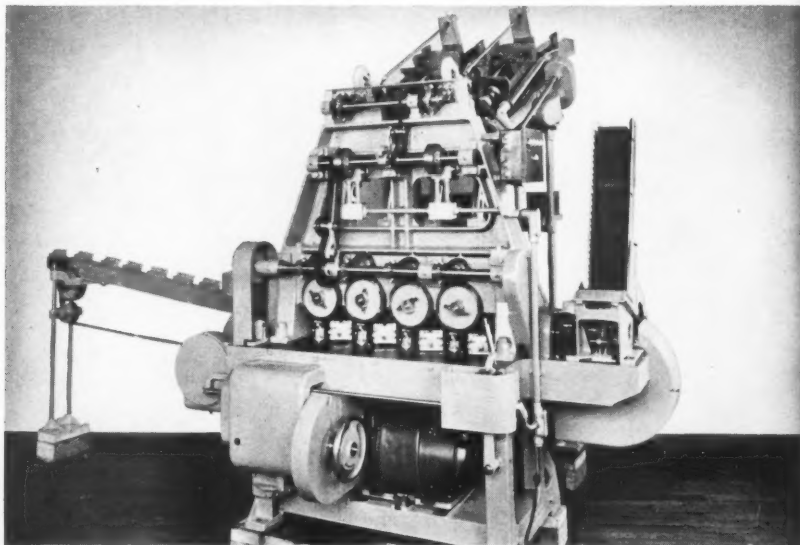
**PACKAGE
MACHINERY
COMPANY**

High-speed automatic loading of cartridges into clips and cartons was the purpose behind the creation of these three machines. The first of these loads eight calibre .30 cartridges in two rows of four into the Garand spring clip without marking of the cartridge casing. A second machine loads five calibre .30 cartridges in a straight line in the Springfield spring clip without marking of the cartridge casing. Loading calibre .30 cartridges into a carton of special design which holds 20 cartridges is the work of the third machine. The carton is made with a special liner in cardboard sections so that each cartridge is kept separate.

In each instance, the method of feeding into the machines is the same. The cartridges are dumped into a hopper at the upper end of an inclined chute. Elevators in the hopper lift a limited number of cartridges into the chutes, from which they slide down in two runways. After being aligned the cartridges are fed into guides which curve downwards so that the cartridges are brought into a position where they are pointing horizontally. From this position, they are fed into the machine proper.

Two lines of cartridges are fed from one common (*Continued on page 128*)

Calibre .30 box loader with automatic hopper feed. (Below) Garand spring clip loader.



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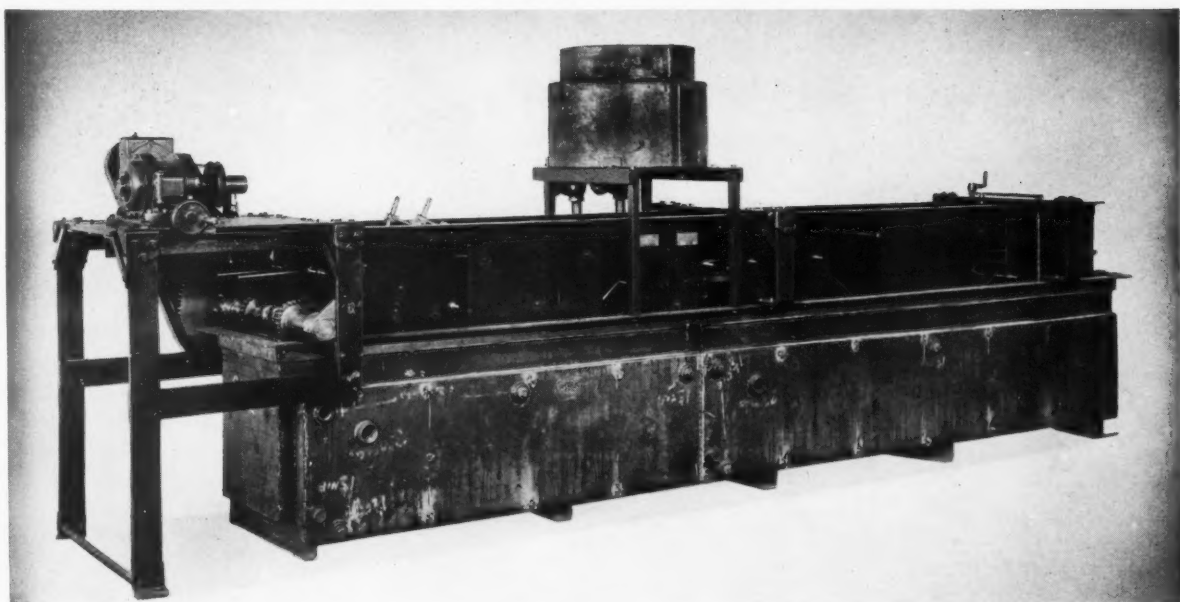
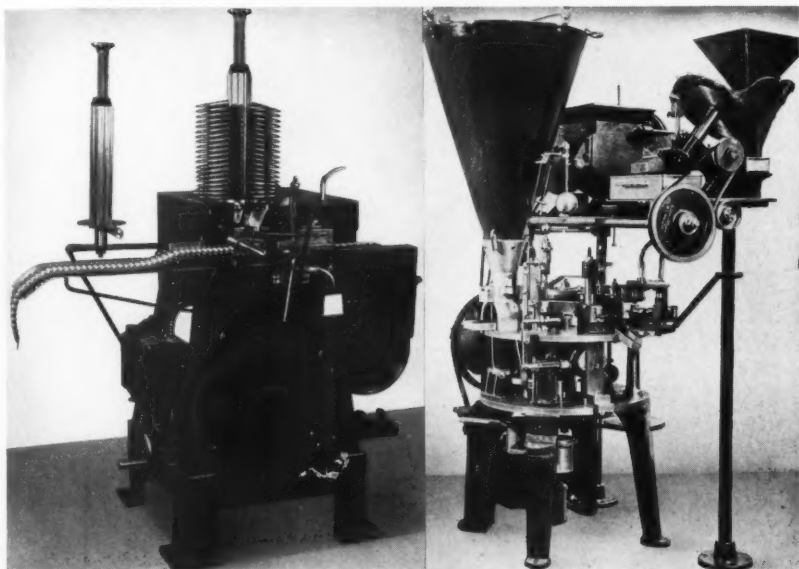
Ration kits must be given maximum protection, for upon these kits the lives of fighting men in the theatres of war may depend. A machine which could apply a protective coating that would insure that the food products in the kit would be safe from moisture and war gases was needed. Technicians knew that wax when applied to the outside of packages would safeguard the contents, so they designed a machine that would apply wax coatings automatically. It applies a flexible wax in two, or as many coatings as desired, to the filled ration kit. These coatings insulate the carton in such a way that neither moisture nor gas can penetrate to the food within and cause it to deteriorate or become contaminated. The same machine also applies coatings of wax to small calibre ammunition packages, thus protecting them until such time as the ammunition will be taken out and fired on the battle front. Speeding up the loading of ammunition into belts and dials is another necessity in war production. An automatic dial loader for calibre .45 slugs and a filler of calibre .30 belts were invented which (Continued on page 142)

(Left) Calibre .30 belt filler. (Right) Automatic dial loader. (Below) Machine for waxing cartons.

*All-America
Package Competition*



**STANDARD
-KNAPP
CORP.**



*All-America
Package Competition*



**LOFT
CANDY CORP.**



This candy box began with an old-fashioned bouquet. Shafts of light from the photofloods fell softly on the flowers and lace. A color camera clicked. On the film, translated from real living blooms, was the design for a gift box of sweets—a design which captures all the romance associated with every swain who went a-wooing with a box of confections under his arm.

As long as anybody can remember, boxed candy has been one of the most popular and appropriate gift items for a man to give a lady. Since it is a feminine gift, its appeal must be feminine. In selecting a design for a year-round gift box, Loft Candy Corp., by the use of the color camera, chose the most modern method of interpreting the traditional theme of its Roses and Lace assortment.

The photographic design is lithographed on the tight-wrap box covering. The box is made to accommodate two pounds of candy. Inside are two one-pound trays. Thus, the box will hold a combination of any two of five distinctly different candy assortments. For example, it may be packed with one tray of dark chocolates and one tray of milk chocolates, or two pounds of any of the company's five standard assortments. These five assortments have been standardized so that the trays will always fit in the gift box.

The basic design was first presented as a water color sketch for approval. The nosegay of real flowers was then carefully constructed and photographed in color. Carbro prints were slightly retouched before the lithographic plates were made.

The Roses and Lace box represents one of the outstanding new packages in an over-all program of redesign and standardization undertaken by Loft during the past year, when this company revamped the whole idea of its merchandising procedure. Their first thought was to re-sell their employees on the company through the medium of this new (Continued on page 148)

MODERN PACKAGING
APRIL 1943

HumKo didn't wait until the government said they couldn't have tin-plated metal containers for shortening. They saw the handwriting on the wall right after the war started. If tin came from the Far East and steel was needed for guns, then there was no use thinking things would go on as usual. Eventually there wouldn't be metal containers for their Trend Hydrogenated Vegetable Shortening, they reasoned, and they might as well get busy and have something else ready.

Their production department got on the trail of substitutes immediately. As a result, their successful 3-lb. paper container with cellophane liner was on the market in September 1942 when WPB said no more metal was available for shortening packages.

Months were spent developing the new container, working first with this supplier then that. The final selection was a cylindrical fibre can of the sleeve type in combination with a bag liner of specially treated protective cellophane to make it moisture and grease resistant. A special mandrel was perfected for the insertion of the bag as well as a heat-sealer to provide the proper closure for it.

The company also concluded from its experiments that it was essential to have a label for the new container that would give it a comparable appearance to the tin can. Consideration was also given to the placement of the label so it would be convenient for the consumer to open the package.

In addition to its pride in winning the All-America Award, HumKo is equally proud of the many tons of strategic materials they have released for direct war production.

Credit: Fibre can, Sutherland Paper Co. Cellophane liner, top disc, mandrel and sealing equipment, The Dobeckmun Co. Cellophane, E. I. du Pont de Nemours & Co., Inc.

*All-America
Package Competition*



**THE
HUMKO CO.**



MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**MORTON
SALT CO.**



Army field rations taste better if the soldier can season them to taste with salt, but there are no salt cellars in an African desert or in the foxholes of the Solomons.

A problem presented to Morton's Salt Co., then, was to make a tiny salt package, small enough to save every fraction of an inch of cubic space in a field ration package, one that could be easily opened in the field, but one that would be siftproof. At the same time, the Army Quartermaster Corps specified that the package should be equipped with a mechanism which would allow the soldier to sprinkle the salt on his food without the use of a salt cellar.

Required compactness was obtained by using for this purpose a small flap envelope—so flat that it takes up practically no space in the ration container. A patented dispensing mechanism was adopted which makes it possible to use the envelope like a shaker. The salt comes out through a sifter mechanism in the bottom of the package. Under the flap, the envelope is glued together at intervals. When the flap is opened, the user simply shakes the salt out through the openings left between the glued portions. The envelope is made otherwise siftproof by means of a safety fold at both top and bottom. The paper used for the envelope has a high degree of moisture resistance to keep the salt dry.

This package was designed for and has been used exclusively by the Army. Millions of these salt packages are now going to the armed forces in all parts of the world. When the war is over, this is a package that may prove a great convenience for many civilian purposes.

(Continued on page 136)

MODERN PACKAGING
APRIL 1943



Time was when the housewife went to the meat counter of her local grocery store or into the corner delicatessen and ordered a few slices of scrapple for breakfast or a quarter of a pound of meat loaf to go with cold cuts for Sunday night supper. The man-behind-the-counter pulled out the metal loaf pan and cut off the required amount of precooked meat.

Then came a time when it appeared as though the popular precooked meats, made ready to eat by the meat packing industries, were in danger of disappearing from the market—not because of meat shortage or of rationing, but because there were not enough metal pans to go around. Foods like meat loaf, scrapple, souse, chili brick, ham salad, sandwich spreads, etc., had to be packaged in some kind of a container, usually the one in which they were cooked, and that container could not be metal. Paper was available, but could a pan be made of paper which would withstand baking heat?

Basic Food Materials, Inc., believed it could. They thought a paper meat loaf pan could be developed and they took their ideas to a boxboard manufacturer. The result was a unique meat pan made entirely of paperboard, which, after actual market testing, has proved to be so effective that there is every indication that it is one of the wartime replacements that will become a permanent peacetime package. It was not created as a substitute but as a functional container designed for a specific purpose.

This unique meat pan is a combination of a corrugated tray and a laminated inner liner of paperboard. The outside tray holds the inner liner in place and forms a mold for the meat. The inner liner is grease- (Continued on page 146)

*All-America
Package Competition*



**BASIC FOOD
MATERIALS,
INC.**

MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**THE BAYER
COMPANY**



Aspirin tablets are now sold in little packets that look like folding match books, all made of paper and cellophane. This is another example of ingenious thinking put to work to solve the problem of replacing the familiar pocket-size aspirin package made of metal.

The Bayer Co. began its search for replacements early in the year. In November their wartime package was market tested and accepted by the consuming public as entirely satisfactory.

Inside the printed paper folder is a completely heat-sealed cellophane envelope holding 12 tablets. A perforated line at the top of the envelope provides the means for tearing the envelope open. By a unique arrangement of heating sealing and crimping below the perforated line, the packet remains permanently sealed except for a small opening just large enough to dispense one tablet at a time. Thus, the remaining tablets in the cellophane envelope are kept clean and in good condition until they are used. Well-worded directions and a diagram printed on the inside of the packet folder show how the packet is to be used. The company was skeptical at first whether users would follow the directions. They tried out the package first on company employees and it worked. Then they tested it by mailed samples to consumers. Again the results were good. Then came the actual market tests and these were passed successfully.

The company was then satisfied that the container would meet their requirements. Many users have expressed appreciation of the container because it keeps the tablets clean, since no dust or loose tobacco in pockets sifts into the envelope.

Counter dispensers have been redesigned to accommodate the new packets and a war-and-victory theme is being used as the (*Continued on page 140*)

MODERN PACKAGING
APRIL 1943

It always took considerable dexterity to apply iodine or mercurochrome to a scratch or cut without wasting the antiseptic or overturning the tiny bottles. A more manageable applicator type of package was something most people felt was needed each time they reached for the mercurochrome or the iodine.

With their new Ioply and Mercuroply capsules, Johnson & Johnson have answered this long-felt need. Haste or clumsiness does not lessen the ease with which the antiseptics may be applied when these packages are used. The drugs themselves are contained in tiny glass ampoules that have been sealed. Transparent cellulose acetate tubes, which are slightly larger in diameter than the ampoules, fit over them. In order to effect an applicator, some tightly compressed, absorbent cotton has been placed in the open end. When a person wishes to apply mercurochrome or iodine to a wound, he simply squeezes slightly between thumb and forefinger the flexible tube, breaking the glass ampoule that it encloses. There is no danger to fingers since the tube is an adequate protective against the sharp edges of the broken glass. As the glass is broken, the drug is released and saturates the cotton and a small, handy swab is made. This saturated swab is conveniently applied to the wound.

An important advantage of this type of package, other than its consumer convenience, is that of keeping the antiseptics fresh and potent. They are sealed in the ampoules at the time of manufacture and remain that way until the ampoules are broken by the user. Iodine and (Continued on page 134)

*All-America
Package Competition*



**JOHNSON
& JOHNSON**



MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**COLGATE-
PALMOLIVE-
PEET
COMPANY**



The core of a ball of string was the inspiration for Colgate-Palmolive-Peet Co.'s new cone-shaped paper container for tooth powder. You have seen such cores for holding string on grocery counters. They are made of fibre, convolutely wound. The cone for the tooth powder container is made in precisely the same way. Added to it, however, is a bottom disc and a carefully made cap to hold the powder in. The sturdy architecture of this shape prevents the container from tipping easily and the container is strong enough to last the full life of the powder. Over the top is a special glassine seal which keeps out dirt and helps to retain the flavor of the product. This seal is removed when the container is opened for use.

Labels are applied after container has been partially formed. Color scheme is red and white, the same as that for other Colgate dentifrices. The design is slightly revised from that of the former metal container to adapt it to the shape of the new container. For example, the trade name, Colgate, is placed at the bottom, where the container is wider, to give the manufacturer's name the most prominence.

The label is made of a paper which is resistant to alkali and which is coated with protective varnish to make it endure under practical use. The new container has been on the market since November and has received enthusiastic reception from the consuming public.

(Continued on page 118)

MODERN PACKAGING
APRIL 1943

When the freight trains and the boxcars were not filled to capacity with food and clothing and all the war essentials for our armed forces, when the holds of the ships were not packed to the last available inch with all the vital military necessities not only for our own men but for the Allied Nations, shipping space was not so important. At least, space was not so stressed that there would be much concern over the fact that a small item like a flashlight bulb took up a bit more room than it should when it was sent from one place to another. But space has become just that significant. A flashlight bulb must be packaged so that it fits into the smallest possible space. That is the way Carlton Flashlight Lamps are now packaged.

For years flashlight bulbs have been packed in a rectangular carton into which is fitted a tray, die-cut with two series of holes for the tiny bulbs. Ten bulbs came to the carton, which were in turn packed in large corrugated shipping cases. Along with other manufacturers of this kind of bulb, Carlton packed their product in just that fashion.

One day a lend-lease order for Australia and Great Britain came into the Carlton office in Newark, N. J. But with the order came a request. The British explained that there was only so much shipping space available and that they needed a certain quantity of flashlight (*Continued on page 136*)

*All-America
Package Competition*



**CARLTON
LAMP CORP.**



MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**THE
CUMMER
PRODUCTS
COMPANY**

When the makers of Energine lighter fluid changed from metal cans to glass bottles, they were faced with the difficulty of providing the new containers with the same consumer convenience in the use of the product. Previously, the lighter fluid had been packed in 3-oz. and 8-oz. cans, supplied with a lead pouring spout. The small openings through which most lighters must be filled was a challenge to manufacturers of lighter fluids to supply a container that had a practical device for pouring. The Cumer company met this challenge with the use of a lead spout of the pouring device. In the manufacture, the cans were filled and the complete spout sweated to the can. The spout was sealed with a thin film of lead which, at the time of use, the consumer simply punctured with a pin.

This spout was the secret of the container's convenience since the fluid could be directed into the tiny aperture of the average pocket lighter without spilling. It is almost impossible to pour from a wide neck can or bottle into the aperture. Thus, the company knew that some means must be found to replace their metal spout, if users were not to be annoyed when they tried to fill their lighters from the new Energine containers. Another necessity was that of effecting a complete seal for whatever container was adopted. Fire regulations in shipment of inflammable products are exceedingly strict.

It was decided that a bottle with a specially designed plastic closure would embody all the needed features. In designing the cap, experiments were made first with hand-made models to try out some of the qualities of this type of closure. The proper clearance at the top of the spout had to be obtained so that the break-off tip would break the hole clean for free pouring. Special attention was also given in the tapering of the spout in order to take care of the small friction-fit cap which goes on top of the spout. Experiments were also made with various types of plastic materials in an effort to find the one which would be most satisfactory for the particular product. A thermoplastic was finally selected—a medium soft cellulose acetate molding compound. The complete package adopted consists of a standard (*Continued on page 122*)



MODERN PACKAGING
APRIL 1943

It's a strange world when printing inks come in ice cream cartons, but it took a mighty courageous ink manufacturer to try out the experiment and have the foresight to test it before the government dead-line on metal containers for printing inks.

This government order went into effect at midnight, April 30, 1942. Ink manufacturers were forewarned, of course, but not all of them were ready with replacements when the time came.

The E. J. Kelly Co. of Kalamazoo, Mich., however, started making test shipments of ink in special paper containers several months before the order went into effect. They used many types of containers for these try-outs but the one that worked best for their purpose was a round paper carton similar to an ice cream container. The secret of the protection is a special coating to keep the contents from seeping through.

Last summer when Modern Packaging wrote about this experiment the company said, "It is not all that can be expected but has many features we hope to improve on." When they sent in their entry blank for the All-America, they wrote:

"Shipments have now been made to all parts of the United States and Central America and to date we have not lost a single pound of ink through the use of the new container. Not only are printing inks packed in this type of container, but ink varnishes, compounds and driers, (Continued on page 140)

All-America Package Competition



**E. J.
KELLY CO.**



MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**THE
PENNZOIL
COMPANY**

When the OPC recommended the adoption of substitute small containers to save metal, Pennzoil started to develop one made of a non-critical material which the company knew would hold oil—glass. As a result of Pennzoil's prompt cooperation with the government, the refinery-sealed, 1-qt. bottle for the company's motor oil was made available when supplies of canned oil were exhausted.

In order to assure ready recognition and acceptance of the new bottle by motorists, a wrap-around label, long familiar to users of Pennzoil, was retained. The container might be new, but as soon as the consumer saw the label, he instantly recognized his old friend, Pennzoil. The bottle is amber in color, weighs but 15 ounces and is 10 inches high. Consumers find that it drains very quickly. When filled with #30 oil, for example, it will drain 99.5 per cent of the contents in 14 seconds, or about one-third of the time required to drain 98 per cent of the contents from the former can. Non-skid surface and hand-hold recess permit easy handling without slipping.

It is easy and economical to fill, seal, label, pack and ship. However, to switch to the new bottle, specially designed filling and capping machines, as well as handling and labeling equipment, were installed. Some of this equipment cannot be built today because most of the plants have been converted to war work.

A tamper-proof closure is provided and it affords a dependable airtight, leakproof seal. The cap may be opened easily and quickly with a regular bottle opener. No sharp tools are needed. This is especially convenient for unskilled or women attendants who will more and (Continued on page 122)



During the last few years, packaging of pure gum spirits of turpentine in sealed containers at the point of production has been developed. Among the pioneers in the field was Turpentine & Rosin Factors, Inc., who saw the advantage of packing their product in their own consumer containers. When metal was plentiful, well-designed metal containers were used, but when these were no longer available, the company switched its line of turpentine to glass.

They chose a Boston round bottle, a shape which is standard, but to give the bottle particular distinction they selected an emerald-green color. A crystal clarity is afforded the product when the bottles are filled. Instead of using a paper adhesive label, they had the label fused onto the glass. It is in white and goes three-quarters around the bottle. (Continued on page 134)

*All-America
Package Competition*



**TURPENTINE
& ROSIN
FACTORS, INC.**



**MODERN PACKAGING
APRIL 1943**

*All-America
Package Competition*



**THE
AXTON-
FISHER
TOBACCO CO.**

Detective story writers to the contrary, the detectives of fiction will no longer pull crumpled packages of cigarettes from their pockets as they launch into the solving of new crimes—not if they are carrying packs of Fleetwood Imperial cigarettes. It was the desire to create a package that would retain its shape and good appearance and protect the product from crushing that spurred the Axton-Fisher Tobacco Co. on to developing the new Fleetwood wrapper. Unless the material from which the wrapper is made is strong, the cigarettes are likely to become crushed while being carried in the smoker's purse or pocket.

In addition, it was felt that since the cigarette package is carried by the smoker at all times, it should be designed with serious thought given to its attractive appearance. Before Axton-Fisher decided upon the present wrap, several outstanding American designers were asked to submit models of packs. The one selected has distinction and artistic merit. The correct grades and weights of paper were chosen to give the package the extra protection against crumpling and crushing.

When the tobacco company wished to make Spuds available with both plain and cork tip ends, they felt the Spud package in use at that time could be redesigned to obtain a better looking and more outstanding item. Furthermore, they wanted to have the cork-tipped cigarette pack distinguishable from the plain-tip one. This forethought on the part of the manufacturer in the beginning would avoid consumer confusion in the end. Though the packs would have the kind of tip marked on the wrap, that has always proved insufficient for the purchaser who is in a hurry.

To differentiate between the plain and the cork tip, a gold background for the cork and a silver background for the plain-tipped cigarette was decided upon. The carton was designed in harmony with the package. The adaptation of the dark panel on the face of the Spud pack, plus the other refinements resulted in the present handsome and dignified design. (*Continued on page 148*)



MODERN PACKAGING
APRIL 1943



Millions of Private John Does in the army and John Does, apprentice seamen, in the navy are responsible for the revival in the art of letter writing. Letters from home are the biggest event in the lives of the men who are on the fighting fronts.

To write those letters takes ink and in keeping with this increased demand for stationery products, The Carter's Ink Co., during 1942, redesigned its whole family of consumer ink packages. Changes also were made in many of the company's other products due to the requirement of replacement for rubber, metal and other materials used in applicator parts of the packages.

Perhaps the changes necessitated by shortage of material should be mentioned first. For example, the company's Army and Navy Stencil Ink package formerly included a metal box, a sponge rubber separator or cushion and metal bottle caps. The new package is a paper box with a wooden platform bottle holder. Plastic bottle caps replace former metal ones. A package for Rubber Stamp Ink formerly had a tin handle applicator brush attached to a rivet in a metal screw cap. To get around the metal shortage, both the brush handle and rivet were eliminated and a new applicator bottle was designed. Application is made simply by tapping the opening of the bottle on pad surface and spreading the ink. A similar redesign of bottle finish provided a means for replacing a rubber nipple applicator used on the company's spreader-top mucilage container.

The company's old package for Glico Liquid paste formerly had a rubber handle brush which combined in one piece, the ferrule, handle and cylindrical section covering the bottle. In addition, a threaded metal collar was provided for attachment to and for sealing the bottle. A (Continued on page 126)

*All-America
Package Competition*



THE
CARTER'S
INK CO.

MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**RCA VICTOR
DIVISION
OF THE RADIO
CORP.
OF AMERICA**



Merchandising of children's records lagged for a long time behind the progress in the actual making of records for children. Often records were grouped together to be sold as a unit, but that did not take care of the shipping container. When shipped such a unit would have to have additional protection. For the most part, records were wrapped in master envelopes, then protected with corrugated pads in shipping.

RCA decided to merchandise children's records in small album units. Three records, for example, on "Bertram" comprise a child's album unit. For the album, corrugated board with an over-all linen weave pattern is used. It is scored and folded to form three sections. The inner side of each section has a paper envelope attached to it and each envelope contains a record. The two end sections fold inward so that a large book or album is formed. The child can easily open it up to select any desired record from the set or close it and stand the album up with the rest of his record library. Albums are wrapped in transparent rubber hydrochloride sheeting to protect them in handling and for display purposes. This sheeting was from stock purchased before there were restrictions on rubber. When this supply is gone, the company, of course, will have to find other means to replace the transparent wrap for the duration. They are packed in units of 10 to a set for shipment and do not require any interior packing or pads of any kind.

The package thus unifies the standard record envelope with the corrugated board to make a three-panelled record holder which folds together to become its own shipping protection. Printing and illustrations in color and the use of simple art work with a great deal of appeal for children as well as adults make the package an unusually effective one. The album affords a children's record unit which can be easily merchandised not only (*Continued on page 134*)

MODERN PACKAGING
APRIL 1943



*All-America
Package Competition*



**HIRAM
WALKER
INC.**

October of the year 1942 marked the 450th anniversary of the discovery of America by Christopher Columbus. The event was observed in many ways and with an awakened realization by Americans of what that discovery had come to mean to them personally. Hiram Walker, Inc., makers of Canadian Club, introduced this stirring and timely display during October to celebrate the anniversary of Columbus' discovery of America.

N. C. Wyeth, famous painter of historical subjects, pictures Columbus as he first sights the land of the New World. All the excitement of the ending of the original voyage is depicted dramatically in the display. The strong colors of the costumes of Columbus and his sailors, the bright tones of the sea and the sky, the effect of the wind in the sails—all are shown in the artist's picture. A rich frame is around the painting, which is draped in the ancient flag of Ferdinand and Isabella of Spain. Those who see the display are immediately held by its spirit of adventure and the memory of the painting proves a lasting one.

Hiram Walker's only identification on the display is their line of tribute to the Great Discoverer. The distillers sent upon request a reproduction of the original painting to each dealer who wanted to use it as a special pictorial background in his window display for Columbus Day. After the display had served its purpose in the window, the picture, fully framed, could be removed from the display unit and hung by the dealer on his wall as a permanent decoration.

Credit: Display made by Ketterlinus Lithographic Mfg. Co.

MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



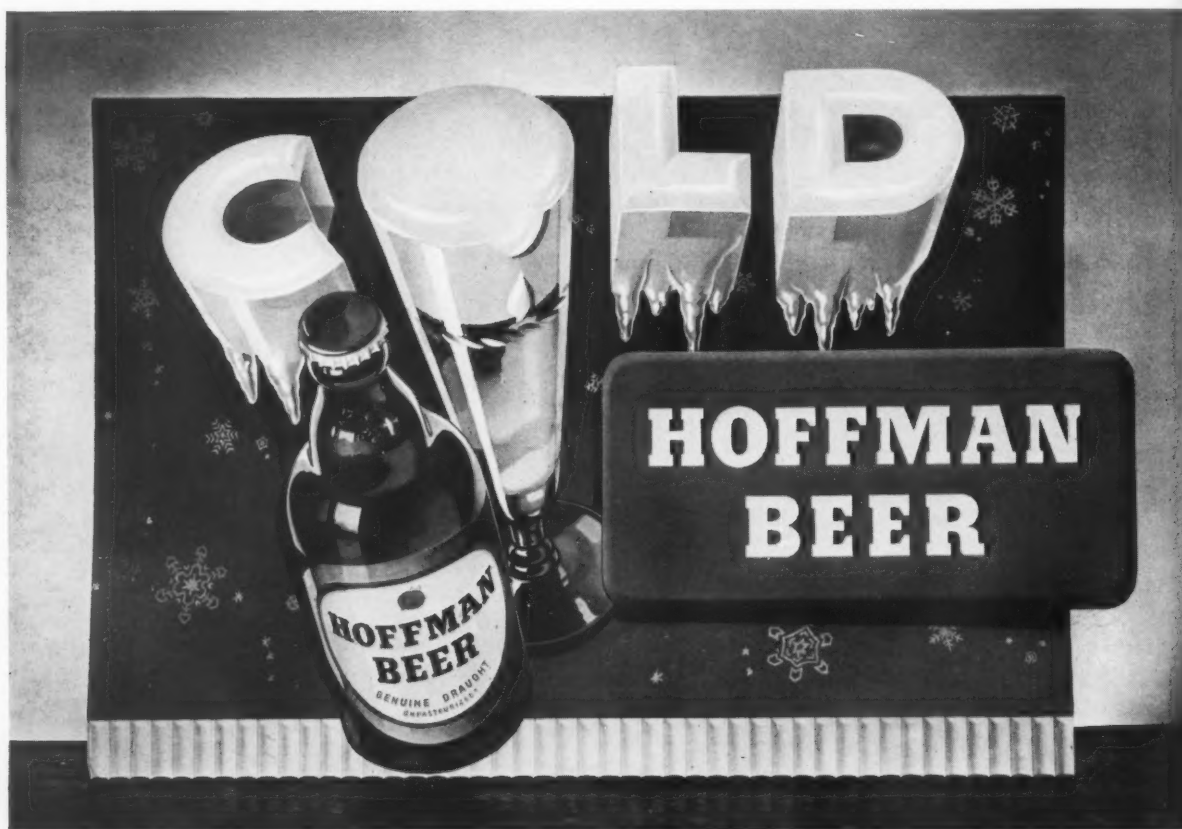
**HOFFMAN
BEVERAGE
COMPANY**

A whole hot weather display campaign was planned by Hoffman Beverage Co., using hanging flange signs, small window cards, large store interior panels more than five feet in length, and light cord pulls. The highlight of the entire campaign was embodied in one poster, however, built around the one word, "cold." It was done in full color—amber beer, cool green background, frosty icicles, sparkling white of the snowflakes and, for contrast, a bright panel of red for the name, "Hoffman Beer."

The display is simply an easel-back poster, but the perspective has been so accurately calculated that it gives every appearance of an actual three-dimensional unit. On the front plane are the individual letters "COLD" and the trade-name panel. By placing a strain on the top of the unit, the back plane is curved slightly so that the bottle and glass of beer stand forward and seem to be real.

In these days when every effort is made to conserve all materials, a display of this type, which can do so much with so little, represents a kind of yardstick for ingenuity. With the most unpretentious materials and simple, universal idea, an attractive, appealing and inexpensive unit was created, which can serve over a long period.

Credit: Designed by J. Clarence Damron. Made by Einson-Freeman Co., Inc.



*All-America
Package Competition*



**LIBBEY-
OWENS-FORD
GLASS CO.**



Two display men were discussing this Libbey-Owens-Ford Glass Co. storm window display.

"No, I know it isn't a flat piece, all on one plane," said one.

"Oh, yes it is," said another.

But the first man refused to be convinced. They located one of the L-O-F displays to prove who was right.

"Well, I'll be . . . ; I could have sworn . . .," said the first man in amazement.

The above conversation is quoted to show what a powerful effect of third dimension this display presents. If you see it casually, you will swear the man in the picture is holding a window sash actually swung away from the window through which the boy and his mother are watching daddy. Such is not the case. The entire pictorial effect is on one plane. This display was designed to stimulate the sale of storm windows in the fall of 1942. The threatened fuel shortage gave it an extremely timely appeal and its realistic effect and universal subject treatment attracted wide attention. The display is lithographed in full color and its third dimensional effect is enhanced by the novel construction of the easel on which it rests. It was used in windows of dealers handling the company's product.

Credit: Made by Kindred, MacLean & Co., Inc.

**MODERN PACKAGING
APRIL 1943**

*All-America
Package Competition*



GARDEN CITY
PUBLISHING
CO., INC.



Ask the average commercially minded person what a counter merchandiser is and he will readily tell you that it is a device to promote the sale of such things as groceries, notions, cosmetics, drugs, articles of clothing, motor oil, practically everything that is sold to the public, but he would never once mention books. For display purposes, books are given gaily colored jackets or perhaps a bright band with the title printed on it together with a catch phrase. A counter display merchandiser for books? He had never thought about that.

The thought did occur to two people, however, and these designers put it into practice by taking a finished model and the general idea to a publisher, who thought so well of having a merchandiser for books that he brought out a set of children's books in this type of display package.

This new kind of package, counter merchandiser was adopted by Garden City Publishing Co. for a set of Kipling's "Just So Stories." The set is made up of four books, each selling for 50¢, but the purchaser of the set of four receives the container free. Because of the low price of the books, the merchandiser had to be inexpensive—and it is. The container for the four books is made of one piece of cardboard, which is so constructed that it requires no gluing. It is strong enough for not only holding the merchandise while in the store or home library, but also for shipping the books.

Construction is exceedingly ingenious, but at the same time very simple. The four books fit into a pocket of the cardboard container, which opens like a book and, when shut, appears to be a child's large picture book. For display purposes, the container is opened to show the "pop-up" of all kinds of jungle animals—characters from the books—which appear beneath the trees and foliage. Deep green and bright yellow coloring enhance the appeal for the children themselves. Special die-cutting and folding effects the "pop-up," so called, because as the container is opened the cut-out animals in their jungle background stand up automatically to make a three-dimensional display which remains in erect position. When the box (Continued on page 120)

MODERN PACKAGING
APRIL 1943

A display unit seldom if ever turns up in the home of the purchaser of the product displayed. Schenley Distillers believed that the idea was novel enough to try, so they presented a display unit for their Royal Reserve Whiskey which can be used in the home. The unit is a floor stand, showing a cheerful-looking man behind a small, half-circle bar. He appears just about to offer his guests a drink of Royal Reserve. He holds a card in his hand which announces that the bar may be obtained for home use.

The bar itself simulates wood, but is made of paperboard, double lacquered for full protection against stains and to be alcohol-resistant. It is 30 in. high and 29 in. wide and 10 in. deep. It is extremely sturdy and when in use a man can lean against it without causing the bar to topple. The figure of the man who stands behind the bar is a cut-out, so that when the bar is used in the home, the man may be eliminated from the unit.

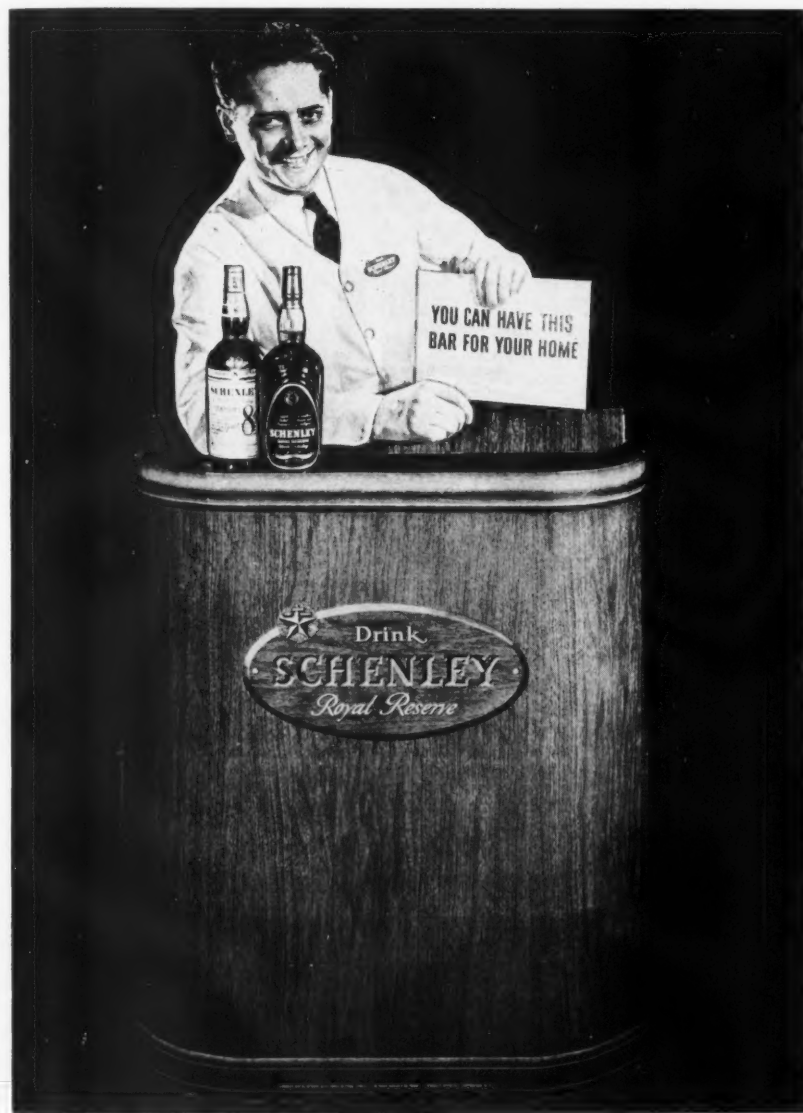
When the display is sent to the dealer it is folded flat and appears no different from any other flat display unit. It is so constructed, however, that sufficient support is given for actual use as a bar without additional pieces being used.

Credit: Display designed and made by Einson-Freeman Co., Inc.

*All-America
Package Competition*



**SCHENLEY
DISTILLERS
CORP.**



MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**INLAND
CONTAINER
CORP.**

Assembled without staples and made of corrugated fibreboard is a new egg pullman case, made by Inland Container Corp., which shows every evidence of continued use long after the war is over. When the wood and the labor needed to make wooden egg cases were abundant, there was no particular incentive for manufacturers to try to design one of fibreboard. War increased the demand for eggs and at the same time diminished the supply of wooden egg cases. As a result the fibreboard case was developed. It meets the demands of the wooden case and in a number of respects, users report, has advantages over the familiar wood case.

The first and one of the most important conditions which the fibreboard case had to meet was that of being able to withstand the high moisture condition incident to refrigeration. Up until 1942 there had not been a great deal of stress upon the creating of paperboard that would withstand moisture or hold up under water. When the need for such paperboard became acute, packaging engineers worked to evolve a board that would do these things. That they have accomplished their purpose is attested to by the fact that many products are now shipped in fibreboard boxes overseas by the government. Using boards that withstand moisture, Inland Container Corp., the manufacturer of the egg case, then developed an adhesive with which to combine these paperboards into a corrugated fibreboard that would afford the strength needed for this new egg case.

When it came to designing and drawing up the actual blueprints for the case, the Inland Container Corp. made no effort to build a case of fibreboard that would be a copy of a wooden case. The manufacturer started out with the thought that he was building a new container in which eggs would be adequately protected in shipment and in storage. Shippers, however, were accustomed to the 30-doz. size case, so the new fibre- (Continued on page 116)





*All-America
Package Competition*



**STANDARD
BRANDS, INC.**

A pillow is what you think of when you first see this "Liquipak" Standard Brands, Inc., has developed as the bag-in-carton for Fleischmann's Diamalt, a thick malt syrup used in the baking industry. Malt syrup, of course, was one of the products on the forbidden list for metal containers and the company had to find something else or not ship its product.

The fabric used for the bag is water-proofed with a special coating. It was coated inside with a non-toxic compound so that when folded to form a bag it could be heat-sealed all around, save for a 6-in. opening for filling.

Instead of starting with the same quantity that went into the formerly used 60-lb. steel pails, the company started its experiments with a bag holding 30 lbs. of Diamalt. The bag, empty, is placed inside a carton and then filled. The opening is closed by heat sealing. After this operation, the carton containing the bag is slipped into an outside carton and tape-sealed with 3-in. cloth tape.

In addition to the specially treated water-proof material used for the bag, an outstanding characteristic of this package is the way the bag fits into the carton so that there is no undue strain in shipping. In a revolving drum at Container Testing Laboratories, sample of the complete package passed severe tests. While some cartons were somewhat damaged, after 500 drops, the bag remained intact. Instructions on how to use the package are given on a label pasted on the short top flap that acts as a hinged lid. Tape (Continued on page 126)

MODERN PACKAGING
APRIL 1943

*All-America
Package Competition*



**SUN OIL
COMPANY**



L-197 was a bad one for the petroleum industry. It meant that many products formerly sold in steel drums could not be distributed for the duration unless suitable substitute containers could be found. The Sun Oil Co., however, has solved the problem very well for greases with a 50-lb. fibreboard drum that requires less than one ounce of steel per 100-lb. unit in comparison with 16 lbs. formerly used in steel drums.

In developing the container, the company wanted to select one that stood the best chance of living through the war period and which would use no critical materials. Further, it had to be small enough for use in marketing grease in small quantities to service stations, jobbers and small retailers.

This drum the company selected is convolute, held together with wire stitching. Bottom is also wire-stitched to the body. Body sides and top and bottom heads are shipped to the Sun Oil Co. flat, where they are then formed and fabricated into the finished drum by machinery installed at the Sun Oil Co. Refinery. This method has obvious transportation and storage savings. A cover rests on a paper hoop around the top of the container. This adds protection to the contents and makes a better-fitting lid. Still further refinements will be made as additional experience is gained from widespread distribution. Top and bottom are blue and the company's label is glued on for brand identification. The container is also available in 25-lb. and 100-lb. sizes. The 25-lb. drum is half the height of the 50-lb. one; the 50-lb. one, half the height of 100-lb. container. Diameters of all three sizes are the same.

These fibre drums have enabled Sun Oil to continue their marketing of the product at approximately the same packing cost as formerly encountered when steel drums or pails were used.

(Continued on page 146)

To prevent breakage, drug firms put cotton in bottles containing tablets. This has generally been done by hand. During the past year Abbott Laboratories, realizing the need to increase productive efficiency in face of wartime operating difficulties, adopted the first completely successful automatic cottoner for this purpose. Four of these machines now in operation do the work of eight or more hand operators in less than half the time formerly required for the manual operation and with practically no manual attention.

The hand operation consisted of pulling cotton off a strip, coiling it and stuffing it into the bottles. This required accurate judgment on the part of the operator; 20 bottles per minute was considered a satisfactory output for the operation. Obviously it slowed up the whole production line.

Now all of this is done automatically at a speed of 40 bottles per minute. Tablet-packed bottles are carried from the counting and filling device on a conveyor. As they reach the cottoning section of the line, the new device inserts the correct amount of cotton in the top of the bottles and tamps it gently but firmly into position against the contents.

The rate of speed is controlled principally by the rate of filling or labeling—whichever is slower. The cottoners, themselves, are capable of faster operation if required. Bottles from $\frac{1}{4}$ -oz. to 8-oz. size are handled on the equipment. Predominant sizes used are 1 to 4 oz.

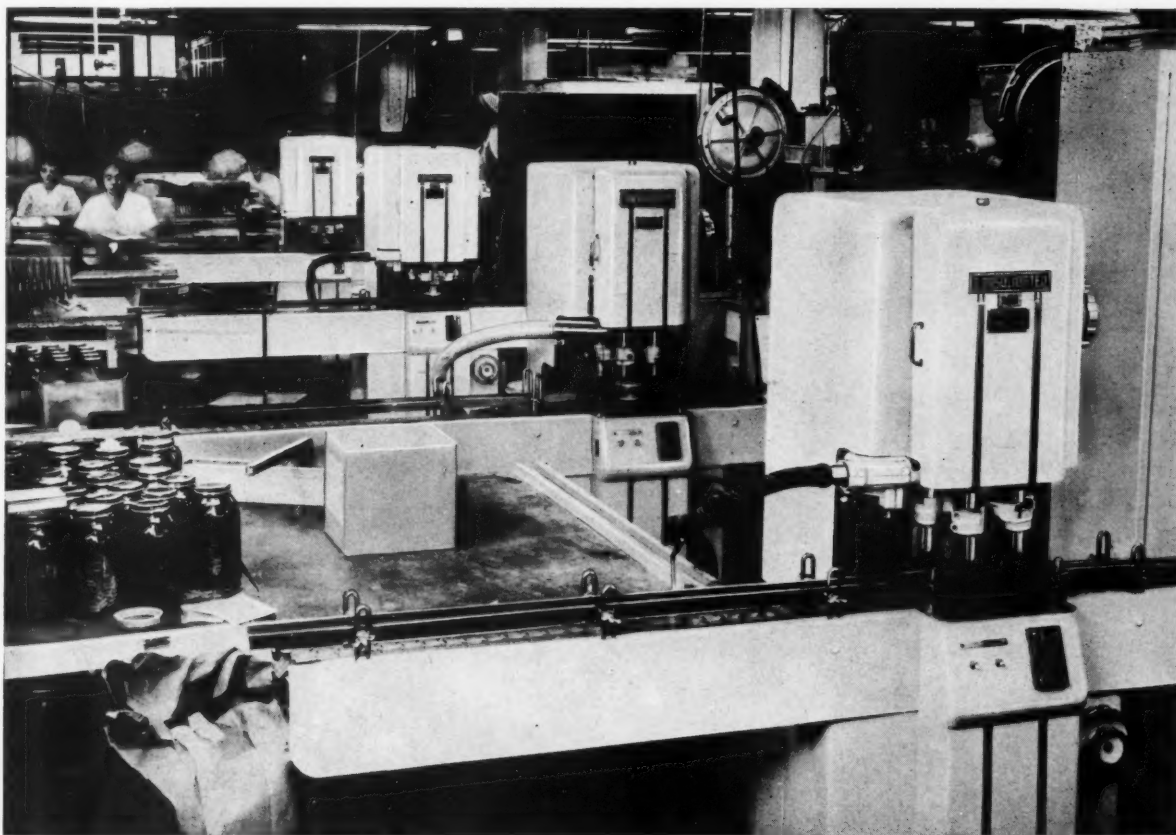
The cottoner is covered by a protective hood. A look inside shows the machine being fed by a continuous rope of cotton, which is cut off exactly at the right length before insertion. Simultaneously the machine exerts a vacuum on the cut-off wad to whisk away dust, lint or other foreign particles to a removable bag at the base of the unit.

Filled bottles, approaching the cottoning mechanism via conveyor, enter slots on a revolving circular disc of composition material and are carried in a semi-circle while the cotton is being inserted and (*Continued on page 120*)

*All-America
Package Competition*



**ABBOTT
LABORATORIES**



*All-America
Package Competition*



**ADEL
PRECISION
PRODUCTS CORP.**

One of the worst problems for manufacturers of small metal parts for war use is the necessity of protecting this equipment from moisture, dirt, dust and other outside elements which might cause damaging corrosion. Adel Precision Products Corp. ships a great deal of their equipment to various air depots and supply stations and from there all these small parts are sent to the fighting front.

Once on the fighting front, these metal parts meet with all kinds of treatment. The men who will need them to replace damaged equipment and to repair some war machine, resort to all sorts of ingenious devices in order to protect these spare parts. Sometimes the men bury them in the sand or hide them beneath the water—any means to keep vital bits of machinery out of the hands of the enemy and to prevent their being discovered and captured.

Such replacement parts must be kept in almost sterile condition for smooth dependable operation of anti-icing systems which protect propellers, windshields and carburetors against freezing and hydraulic systems which control many of the operations of large aircraft, such as raising and lowering of landing gears, opening and closing of bomb-bay doors, actuation of machine gun turrets, wing flaps, cowl flaps and other devices.

Adel Precision Products protect the small metal parts they send to the armed forces by cellophane bags. Each part is packed in its own individual bag, which is labeled with the manufacturer's name and the identification of the particular piece of equipment. Because the bags can be imprinted with such information, confusion is avoided later when the part (*Continued on page 118*)





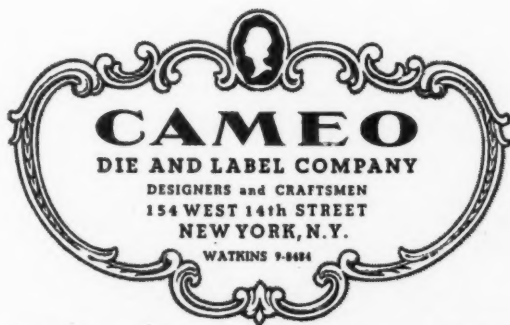
Quality Embossing

COLOR-PRINTING ON AVAILABLE PAPER

The absence of foils and metallic papers need not prove a stumbling block to any packager who wants a beautiful embossed, color-printed wrap, label, seal or tag.

The tipped-on seal on this page, produced as part of a book cover, is typical of the fine results in three-dimensional color reproduction done on plain white paper.

Similar quality is available to all industries to the limit of our facilities. We prepare our own dies, do color printing up to three colors automatically on special presses. The results are guaranteed.



IN CANADA: CAMEO METAL SEAL & LABEL CO., LTD., 371 DOWD ST., MONTREAL



ALL-AMERICA PACKAGE COMPETITION

Inland Container Corp.

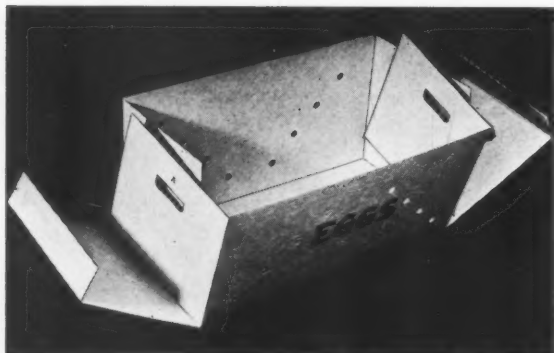
(Continued from page 110) board container was designed to hold that many. Inside dimensions were made very exact so that there would be no damage due to the shifting of the eggs in the case in transit. Outside dimensions were made to fit the customary shipping space allowed for wood cases.

While the case was in the process of being developed, the manufacturer gathered information from users on just what was needed in an efficient case. Most egg shippers, it was found, having used wood egg cases for many years, did not possess stapling machines so a case that had to be stapled in any way by the shipper meant that he would have to purchase a stapling machine and wire. The WPB reported that it would like to be relieved of the necessity of granting or denying applications for priority assistance on stapling machines from egg shippers. The new case then uses no stapling and, as a further advantage, needs no gluing. Eggs must have ventilation, it is claimed, conse-

quently that was provided for in the pullman case. There is an outer case into which fits an inner liner. Perforations run in a triangle on the two long sides of the outer and the inner liner cases. The perforations afford ventilation when matched up and by switching liner about, ventilation may be closed.

The case is easily assembled by the shipper. It comes flat and merely needs to be folded. There are no tricky locks or other devices to slow up the operator who assembles the container. The top of the case is also folded in position and fits snugly over the outer edge of the case. For re-trips, the case may be knocked down for re-shipment and then re-assembled. Hatcheries report the new containers to be good for 8 to 12 re-trips.

There are no repairs on these fibreboard cases—when they fail they become scrap. However, because of their double side walls and quadruple ends and solid bottoms, they stand up under many re-trips under rough and exacting conditions.





TOMORROW
HE'LL BE
IN THERE
WINNING...



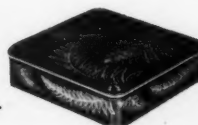
HE'S only a colt now . . . a gangling, foolish, playful little fellow—but in a short time he'll be in the big race with his nose out in front. That's how fast time passes. We're going to win this war as quickly as we can. Heekin is working day and night with high speed presses producing millions of lithographed cans necessary for defense and for war. If you produce such a product, we can help you. If your's is a peace-time consumer product, remember that Tomorrow comes quickly . . . make your plans now. Maybe we can talk about them with you. In the meantime—Look Ahead.

THE HEEKIN CAN CO., CINCINNATI, OHIO

HEEKIN

Lithographed Cans

WITH HARMONIZED COLORS





ALL-AMERICA PACKAGE COMPETITION

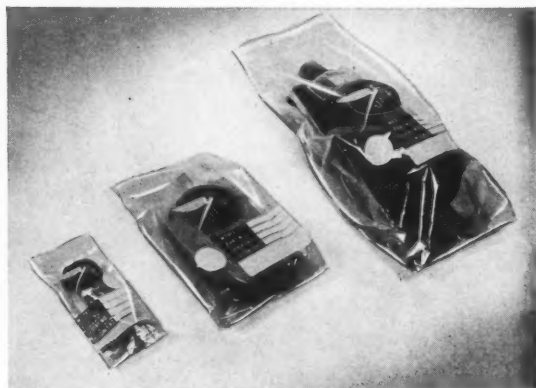
Adel Precision Products Corp.

(Continued from page 114) is needed—it may be easily and quickly identified. To the manufacturer



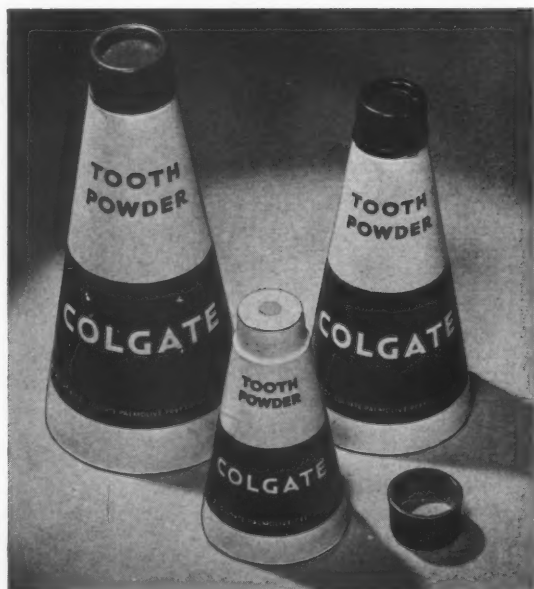
accrues a certain amount of advertising, since the parts may carry his special trade mark or name. The cellophane envelopes have proved effective in giving the metal parts the added protection they need under the exceedingly varied and rough conditions to which they are exposed. In many cases, the cellophane bags have been that added protective covering which has weathered torrential downpours and kept the equipment free from corrosion and ready for use when most urgently required.

Credit: Designed by George Tharratt. Printed cellophane bags by Milprint, Inc. Cellophane by E. I. du Pont de Nemours & Co., Inc. Photo of plane, Official U. S. Navy Photograph.



★ ★ ★ ★ ★ ★ ★

Colgate-Palmolive-Peet Co.



(Continued from page 96) When these truncated cones were first introduced, Colgate used the back panel to tell consumers the reason for the new containers. The message explained that they were victory containers created to take the place of the metal cans which had been familiar for many years to the purchasers of Colgate's tooth powder. Since the cones were all-paper, they represented a tremendous saving of metal.

Good display value is retained in the cones because of the bold effects of color bands. The package is uncluttered with copy, so that the shopper can easily identify the product and its maker at a glance. The tooth powder is packed in three different sizes in order that purchasers may buy the size they are accustomed to having or the smallest size for convenient packing in hand bag or suitcase.

Credit: Designer, William A. Troy. Container and cap, Sonoco Products Co. Label, National Label Co. Shipping carton, Swayze Folding Box Co.

IT'S IN—BECAUSE IT CAN'T



☆☆☆ Award: Groceries Group ☆☆☆
The Humko Company, Memphis, Tenn.

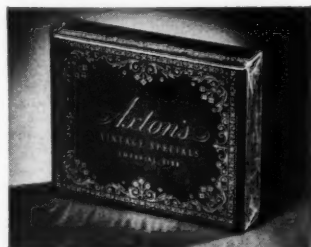
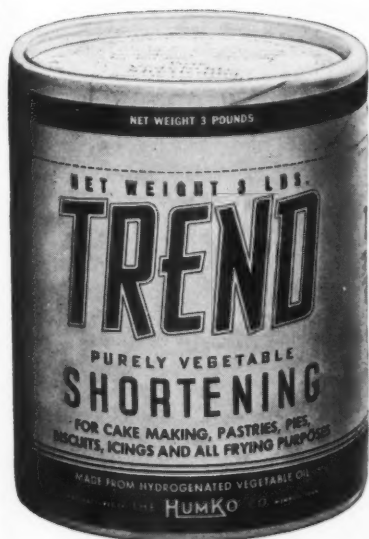
What's In? Hard-to-hold vegetable shortening; packed by a unique new method combining a tight, floating cellophane bag and heat-sealed disk inside a spiral wound paper can. Special mandrels for which patents have been applied, turn the top of the bag over the edge of the container by the *"Cellocuff" process.

This attractive, practical replacement for tin cans has been amply market-tested by the progressive Humko Company, Memphis, Tenn.

Say they, "Leakers?"—"None."
 "Consumer comments?"—"Wonderful." "So sanitary." "So easy to open."

Here's an open display, mass production package which will give tin a run for its money after the war. It saves weight and freight; dispenses with metal entirely.

Write for samples and a technical recommendation now. Ask for samples of *"Tritect" laminated cellophane, widely used for dehydrated army rations.



Axton-Fisher's Vintage Specials— a swank cigarette, have all external brand name printing on their Dobeckmun Cellophane wraps. Award, Tobacco Group, All-America Package Competition.

The DOBECKMUN Company
 Cleveland, Ohio ☆ Oakland, Calif.

*Trademark

CONVERTORS. PRINTERS. LAMINATORS OF CELLOPHANE



ALL-AMERICA PACKAGE COMPETITION

Garden City Publishing Co., Inc.



(Continued from page 108) is closed in the usual way, they lie flat, making a container in which the books can be shipped and stored. The merchandiser was made practical commercially by the invention of a machine by the designers. This machine forms the three-dimensional display-merchandise, so that speedy, mass production aids in reducing the cost of the set of books in its attractive display container.

Credit: Designer of merchandiser and of machine to form the package, Ben Klein and Geraldine Clyne. Lithography by National Process Co., Inc. Die-cutting and forming by Freedman Cut-Outs.

★ ★ ★ ★ ★

Abbott Laboratories



(Continued from page 113) tamped into position by two successive rods. After this brief 180-deg. detour, the bottles resume their journey to the capping machines, where they are fitted with plastic screw caps and the package is ready to be labeled.

A circular, self-sharpening knife completely enclosed within the hood, cuts the strip cotton to proper length and operates in a horizontal plane. The knife and terminus of the vacuum pick-up tube are combined in one unit which reciprocates as the bottles enter the slots of the device, intersecting the strip cotton, at the end of each inward swing.

When bottle sizes are changed, a disc carrying slots of the required size is substituted and the

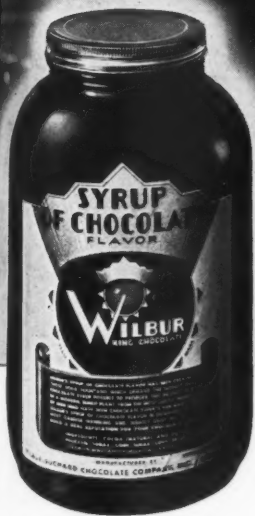
semi-circular ring, against whose inner periphery the bottles travel, is changed to correspond. Three different diameters of strip cotton meet all Abbott requirements for cottoning with these machines.

When the cottoning machine is shut off, the company has discovered that the machines frequently may be used as conveyors to carry filled bottles from the counting and filling device to the capping machine. With the exception of inserting a new roll of strip cotton occasionally and emptying the vacuum bag when necessary, the equipment operates entirely unattended. With the conveyor mechanism and vacuum unit built directly into the equipment, the cottoners are ready to begin operating when they are plugged into an electric outlet.

Credit: Cottoners, Consolidated Packaging Machinery Corp.



Pouring
on a
Reputation



The smooth, rich chocolate syrup supplied by The Wilbur-Suchard Chocolate Co., Inc., has helped soda fountains all over America build an enviable reputation for delicious frozen refreshments. Today, like many other familiar products, Wilbur's Syrup of Chocolate is packed in glass containers and securely sealed

with Crown Screw Caps. ♦ If you, too, are turning to glass containers in order to conserve highly critical materials, you will find Crown Closures available in a wide variety of types and sizes to meet your own particular wartime needs.

CROWN CORK AND SEAL COMPANY

World's Largest Makers of Closures for Glass Containers

BALTIMORE, MARYLAND

CROWN CLOSURES

CROWN'S WARTIME POLICY: To supply closures, containers and services for packaging foods, beverages, chemicals, etc., needed by civilians and the armed forces. To build an ever-increasing volume of vitally needed weapons of war for our fighting men.



ALL-AMERICA PACKAGE COMPETITION

The Pennzoil Co.



(Continued from page 100) more be comprising the workers in filling and service stations. Removal of the cap damages it in such a way that any possible

re-use of it is prevented and the consumer is assured that when he orders Pennzoil he is always getting what he asks for in that container. As an added measure of protection for the customer, the bottles cannot be fitted with other closures since standard size corks and caps will not fit. The Pennzoil cap is made of blackplate and has a non-critical compo cork gasket as the sealing medium. They are a saving of vital metal, since 10,323 closures can be produced from the same amount of metal required to produce 290, 1-qt. oil cans.

Pennzoil is packing 20, 1-qt. bottles in a carton—a unit of five gallons which is especially good for handling, inventory control, shipping and invoicing.

Because of the attractiveness of the bottles, the product is being sold from displays, just as bottled grocery or drug merchandise. Many unusual displays are possible without the need for special metal racks, dealers have found. Many of them use the eye-catching cartons in which the bottles are packed to provide a convenient display piece for the bottles.

There is no problem for the dealer or consumer of return on the bottles, since the new containers as well as the former metal ones are designed as non-reusable containers. However, Pennzoil suggests that the bottles be sold as scrap glass.

Credit: Bottle and closure by Anchor Hocking Glass Corp. Label by Derrick Publishing Co. Carton by The Ashtabula Corrugated Box Co.

★ ★ ★ ★ ★ ★ ★

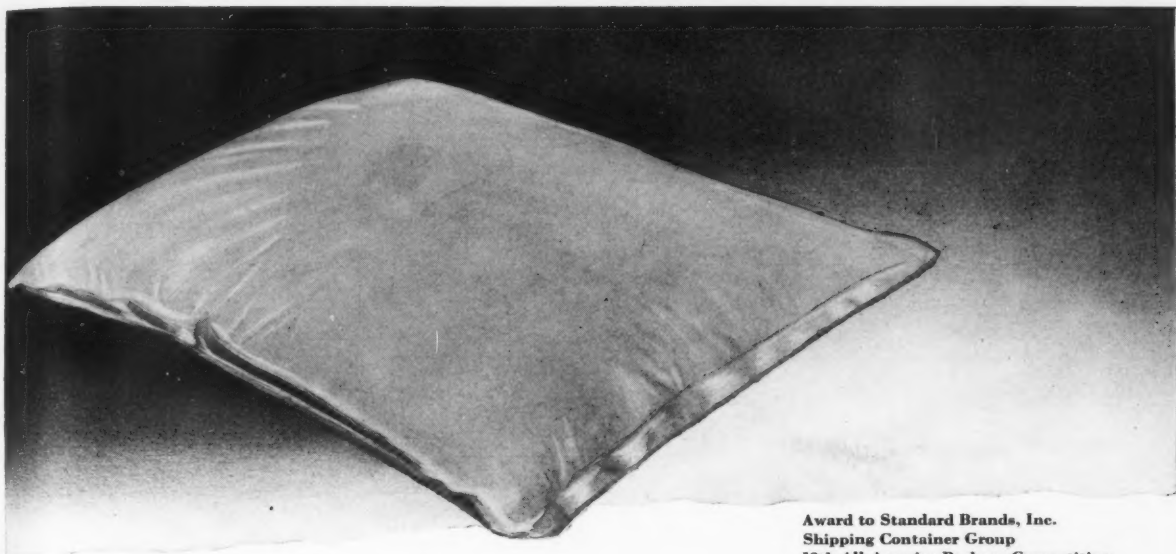
The Cummer Products Co.

(Continued from page 98) round 3-oz. and 8-oz. size bottle of amber color. The plastic spout is a completely sealed threaded closure fitting a 24 mm. G.C.A. finish. A pulp and vinylite liner has been used in the closure, but due to limitations in availability of vinylite, their laboratory approved several satisfactory substitutes now being used. The spout is sealed with a small plastic tip which, when broken off, reveals the spout opening. For protection of remaining contents after the consumer has filled his lighter is a re-seal cap. The new plastic closure has the conveniences of the former lead spout and still effects conservation of war materials.

In changing to glass, the original identifying design of the former can was incorporated by the Cummer company in a new three-quarter paper label. This label has the black "Energine" bulls-eye printed on a bright red background.

Credit: Bottle by Owens-Illinois Glass Co. Closure by Plastic Engineering, Inc. Label by Wheeler-Van Label Co.





Award to Standard Brands, Inc.
Shipping Container Group
12th All-America Package Competition

THE *Pillow* THAT'S FULL OF LIQUID MALT

When the war commandeered Standard Brands, Inc. metal pail used for packaging their liquid Diamalt, the problem of developing a suitable non-rigid container that would hold 30 lbs. of malt confronted this organization.

A successful solution required the development of a special type of coated fabric—one that would be non-toxic, liquid impermeable, flexible, shock absorbent and possess unusual heat seal strength.

Our specialized knowledge of thermoplastics in the coated cloth and paper field was brought into play and we successfully developed the required coated fabric.

We have developed many coatings for both cloth and paper for protective packaging which are heat sealing, moisture-vapor proof, grease and oil proof, chemical resistant, etc. We supply either the coating compounds for application by spreader, roller coater, varnish machine, calender or hot melt or the coated paper or cloth.

Consult us on your coating or packaging problem. Specialties developed to meet government or your individual specifications.



Gordon-Lacey **CHEMICAL PRODUCTS CO.**

57-02 49th STREET, MASPETH, L. I. — NEW YORK CITY
In Canada: Van Horne Ave., MONTREAL



SPECIAL AWARD...





For Contributions To

Packaging in Paper

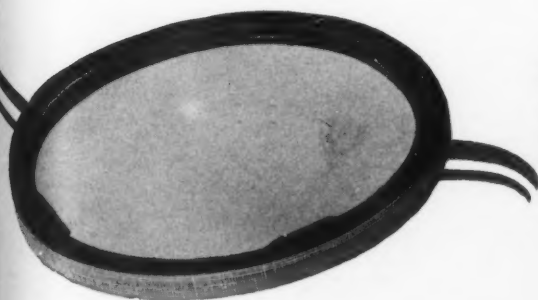
SUBSTITUTE PAPER PACKAGES KEEP 'EM SELLING

THE rare distinction of winning a special Award in the All-America Package Competition is gratifying to us. However, this advertisement was not intended as a boast—but as a means of drawing a lesson from the Award for our customers and friends.

Recognition by the All-America judges confirms what many packagers already know—that Burt's resourcefulness and Burt's resources are wide. We have handled many tough packaging problems, and helped our customers meet many pressing emergencies.

Shown on these pages are a few of the packages, developed from available papers, which have answered the container and merchandising problems of some factors in the cosmetic, dentifrice, toiletry and other fields. They are being manufactured in large quantities, on machines especially designed and built in the Burt plant—to keep products selling, and consumers buying.

We thank the Judges for the Award. We thank our customers for the opportunity of serving their packaging needs.



F. N. BURT COMPANY, INC.
500-540 SENECA STREET, BUFFALO, N. Y.

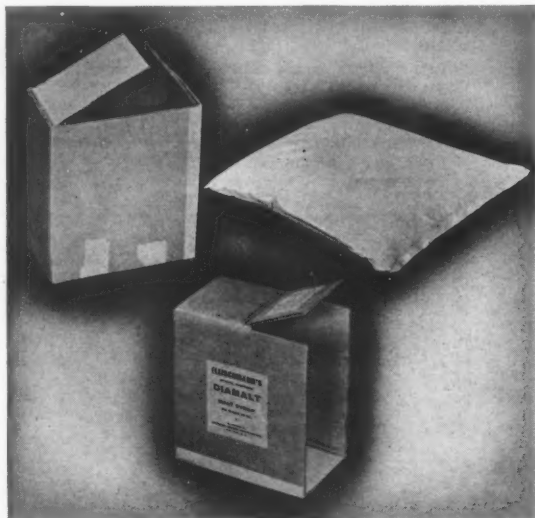
NEW YORK CITY · PHILADELPHIA · BOSTON · ST. LOUIS
ATLANTA · CHICAGO · CLEVELAND · CINCINNATI · LOS ANGELES
NEW ORLEANS · MEMPHIS · MINNEAPOLIS · KANSAS CITY
SAN FRANCISCO: 216 Pine St. — Telephone EXbrook 5323
CANADIAN DIVISION: Dominion Paper Box Company, Ltd.
469 483 King Street, West, Toronto 2, Canada



ALL-AMERICA PACKAGE COMPETITION

Standard Brands, Inc.

(Continued from page 111) is cut on three sides of the top flap, which is then bent back to reveal a corner of the bag between two small flaps of the inner carton. A rubber-stamped line on the corner



of the bag shows where the user should cut it. After this is done, the carton is held under the arm and the desired quantity may be poured out. The outer flap pulled up slowly towards the bag serves to cut off the flow. When the inner flaps are replaced on each side of the bag opening, the package is ready for storage until further use.

Water-proof compounds for the fabric are made from non-critical materials. The package is recommended for holding water-base liquids and oils. It will hold some acid materials if the coating is adjusted to them. Corrugated board, 500-test, is used for the outer carton. Permission will be given by Standard Brands to other manufacturers to use the package for military and lend-lease orders, also for civilian uses on a mutually satisfactory basis. The packages are made to withstand 30 lbs. weight. This has proved a merchandise advantage, because many bakers will buy the smaller unit, but not a larger one.

Credit: Weather-proof coating for fabric, Gordon-Lacey Chemical Products Co. Cartons, Star Corrugated Box Co., Inc. Developed by Thomas R. Baxter.

★ ★ ★ ★ ★ ★ ★

Carter's Ink Co.

(Continued from page 103) wooden brush is now attached to a rivet in the screw cap. In addition to saving rubber, the new package with its flush top is easier to ship. It is more convenient to use, since the cap may be set on the desk with bristles upward without danger of rolling on the floor.

A former ink eradicator package comprised a metal box, a sponge rubber separator and rubber cap washers. The metal box has been replaced by a paper one. The sponge rubber separator also was replaced with paper. The cap washers presented the most difficult problem because only rubber will make an effective seal between applicator rod, cap and bottle. This was solved by packing the applicator rod outside the bottles but inside the box. Throw-away shipping caps have been provided. These are replaced by the applicator caps when the product is put to use. The applicator caps, provided with plastic washers, make an effective seal against evaporation, but would not seal against liquid leakage while in transit. Packaging of another of the company's ink eradicators called Rytuff was solved in the same way.

With the advent of V . . . Mail service, some manufacturers brought out for merchandising purposes a special V . . . Mail black ink. Carter, however, felt that dealers might not like to stock an extra line when any good black ink would do the

job. They stressed that all Carter's Black Inks were correct for V . . . Mail, but in order to guarantee acceptance, special tabs were made to show that Carter's black fountain pen inks were correct for V . . . Mail photography.

From a purely shelf-appearance standpoint, Carter's greatest innovation was the development of pictorial labels and cartons, and symbolic names for their various fountain pen inks, suggestive of the various colored inks in the line. For instance, "Washable blue" has a picture label of porpoises jumping over foaming waves; "American blue" has an illustration of an American eagle. A red-coated hunter on horseback is the decoration on the package for "Hunting red" inks; beavers, on "Beaver brown," etc. This decoration lends itself to colorful displays. An oval bottle, which the company adopted for one color ink in 1941, has been accepted for the whole fountain pen ink series.

Credit: Bottles, Hazel-Atlas Glass Co. Closures, Wheeling Stamping Co., National Seal Corp., Hazel-Atlas Glass Co., Anchor Hocking Glass Corp., Colt's Patent Fire Arms Mfg. Co. Boxes and cartons, E. N. Rowell Co. Inc., National Folding Box Co. and Bicknell & Fuller Paper Box Co. Labels, Strathmore Press. Wood platform and applicator brush, Banton Bros. Applicator rods, Kimble Glass Co. and Glass Products Co. Paper separator and spacer, Scott and McDonald, Inc. Rod Holder, National Folding Box Co. Boxboard, Lowe Paper Co. Art work, The J. Walter Thompson Co.



The Label

IS ALSO THE WRAP AND THE PACKAGE



*A*WARD...

*Drugs, Chemicals, Drug Sundries Group
12th All-America Package Competition*

THE BAYER COMPANY, with the assistance of Ivers-Lee, solved the tin shortage by replacing their metal package with an ingenious "match-box" type container.

The outer part of this package, which contains the brand identification, directions for handling and use, and gives the protection to the delicate contents, is attractively printed in the familiar Bayer colors by The Nevins-Church Press.

In our more than 40 years experience we have turned out many an Award-winning label—and we expect to turn out many more. If you need a new label, or wrap, we'd be glad to help you with design and production.

The Nevins-Church Press

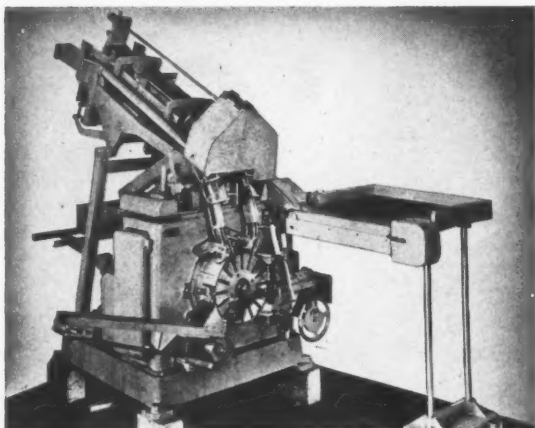
250 Park Avenue

New York, N. Y.



ALL-AMERICA PACKAGE COMPETITION

Package Machinery Co.



Springfield clip loader fills 150 clips per minute.

(Continued from page 88) feeding position, but are fed down two chutes and two pairs of parallel rods carry the two lines to two loading stations on the machine proper in both the Garand and the Springfield clip loaders. There are, however, four loading stations on the carton loading machine. Four lines of cartridges are fed from one common feeding position, but they are fed down four chutes and four pairs of parallel rods carry the four lines to the loading stations on the machine proper.

Clips for the Garand clip loader are fed by one operator into a continuously running chain. Precautions are taken to assure their being fed into the machine in the correct manner. Speed of the machine is 70 filled clips per minute or 560 individual cartridges. Precautions have been taken so that the machine stops if there is, for any reason, a shortage of either clips or cartridges being fed into it. Also, each cartridge magazine has a stop to indicate if there are four cartridges ready to be loaded. Loaded clips are discharged on to a belt and into tote boxes.

From the two lines which feed into the Springfield clip loading machine, the cartridges go in a straight line directly into the top pockets of a vertical intermittently driven wheel. The cartridges are fed alternately from each line by a step in each of them in order to allow time to feed by gravity into the pocket wheel. At the quarter turn of the wheel, the clips are pushed from a magazine over the heads of the cartridges. From tables, clips are fed sideways into a continuous chain feed which carries them into a vertical magazine. Clips are stacked up on this magazine on their narrow edge and pushed directly into the primer end of the cartridges in the pocket wheel. At a lower station folding dies turn in the end lugs of the clip which hold the cart-

ridges from sliding out end of clip. The completely loaded clip is discharged on a belt conveyor which carries the clip to the packing table. Speed of the machine is 150 filled clips per minute or 750 individual cartridges.

On the carton loading machine, the actual feeding of the cartridges into the boxes is done by four groups of two continuously rotating pocket wheels. The first wheel is smaller in diameter and serves as a means of transferring the cartridges from the guides at the bottom of the hoppers to the second pocket wheel from which the cartridges are pushed in the boxes. The first wheel revolves in a counter-clockwise direction and the second wheel in a clockwise direction, both wheels running continuously. Both the first and the second wheels have grooves made to fit the shape of the case, but the pockets are cut much deeper in the first wheel than in the second in order to assure picking up the cartridges from the guides. Pockets cannot be cut deep in the second wheel since clearance must be allowed for the pusher which shoves the cartridges into the box. In the second wheel, the pockets are spaced in two groups of 10 and the spacing of each individual pocket is twice that of the sections in the carton so that when the pusher shoves the cartridge into the carton, every other section is filled in the bottom row. The pusher is actually a lug mounted on a short continuously moving chain, set at an angle. Angle and speed of the chain are arranged so that the lugs have a lateral travel equal to that of the second pocket wheel. As this wheel revolves, the lug travels in, pushing the cartridge out of the pockets and into the box. At the same time, the carton-carrying chain is moving at the same continuous speed of the pocket wheel. If a jam should occur, a knock-out overload release for the pusher chain lug has been provided.

This pusher does not drive the cartridges all the way home. In order to complete the job, a transport, moving continuously at the same speed as the cartridge, is used which pushes the cartridge all the way in. Since the spacing of the pockets in the first group is twice that of the sections in the cartons, every other section in the bottom row is first filled. Then, immediately following the transport pusher is a second group exactly like the first—including the hopper, pocket wheels and pushers—which fills the remaining every-other-section of the carton, thus completing the bottom row of 10. The top row of 10 sections is filled in precisely the same way as the bottom row, but center line of second set of wheels is raised up the distance between the two layers of section of carton. (Continued on page 132)

IF IT'S DURATION PAPER TROUBLE--

MAYBE WE CAN HELP

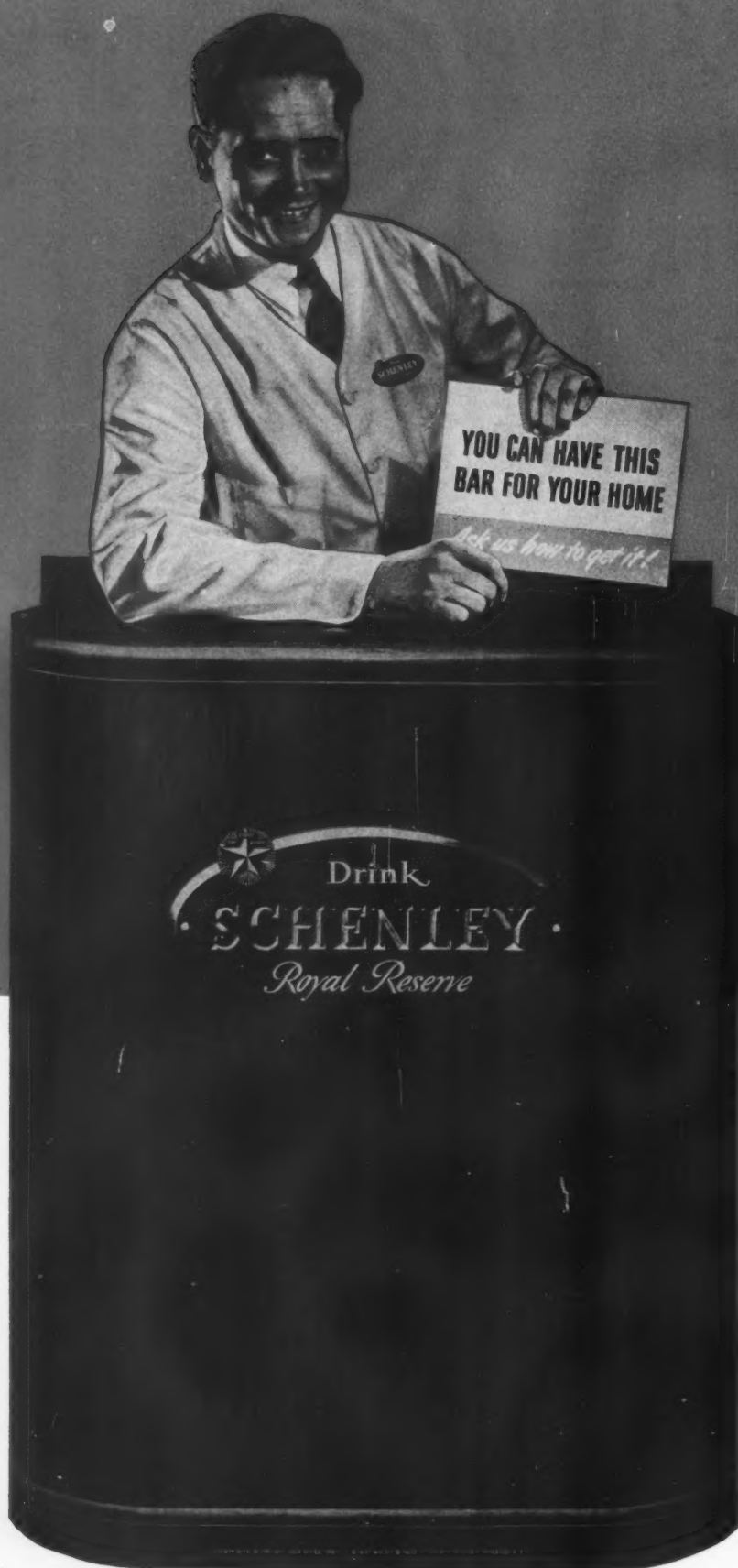
Over a period of many years and through many difficult times, valuable information in paper making has been accumulated by our research laboratory. This knowledge is put into practice in producing Fitchburgs converting and packaging papers.



Alkali Proof Papers
Coating Base Stock
Foil Mounting Papers
Pyroxylin Papers
Board Lining
Gumming
Lacquering Papers
Box Wrap
Printing Papers

Fitchburg Paper Company

250 PARK AVENUE, NEW YORK CITY Mills: FITCHBURG, MASSACHUSETTS 11 SOUTH LASALLE STREET, CHICAGO



TOP AWARD . . . a bar of special fibre board . . . place in back for bottles and alcohol resistant. Folds up like a bridge table . . . when open will support one standing man and any number of leaners! Because some states forbid giveaways . . . the bar was priced at one dollar . . . solved a premium problem for Schenley. First order was for a large quantity . . . second 2½ times greater! Planned, designed, and manufactured by Einson-Freeman.



"Wouldn't you think Einson-Freeman would stick to its war work and toy lines—and let somebody else have a crack at the Display Awards?"

Sorry, pal . . . as long as Einson-Freeman gets displays to make, they will be good displays! And as long as awards are given, Einson-Freeman displays will probably win some. True, we are working for Uncle Sam . . . and are manufacturing a spectacularly successful line of toys and premium promotions. But on displays, the old eye has not lost its cunning, nor the shop its skill. And, despite our new activities, Einson-Freeman stands ready and willing to make superior displays for smart advertisers who want same! Einson-Freeman Company, Inc. . . . *Unrelenting lithographers* . . . Starr and Borden Avenues, Long Island City, New York.



TOP AWARD . . . a two-plane window display for Hoffman Beer . . . with one very plain appeal! Designed and executed by J. Clarence Damron, Hoffman art director; lithographed in full color by Einson-Freeman.



ALL-AMERICA PACKAGE COMPETITION

(Continued from page 128) There are in all, four complete stations on the carton loader, each consisting of a hopper, a first and second pocket wheel combination, a chain lug pusher and a transport pusher. The set-up cartons with separators are fed into an inclined magazine feed by an operator who stands behind the machine. As he feeds the cartons into the machine, he inspects the separators to see that they are correctly in place. Cartons are placed flat, one upon the other, in the magazine feed, so that the open ends, with the cover standing out straight, are facing the front of the machine. A reciprocating pusher shoves the cartons out of the magazine, one at a time, over the carton-carrying chain and a plunger bats the carton down between

lugs on the chain. As this occurs, the cover on the carton is turned up and remains in a vertical position all the time that the carton is in the carrying chain.

The carton carrying chain runs continuously. In order to remove the cartons from this chain, a continuously revolving paddle wheel, which rotates on a vertical axis, is used. From the paddle wheel the cartons go down a convex, curved chute which stands the cartons on end or upright with the cover up straight. At bottom of the chute is the continuously running belt discharge with high side guides.

Credit: Garand and Springfield clip loaders and carton loading machine by Package Machinery Co.

★ ★ ★ ★ ★ ★ ★

Reynolds Metals Co.

(Continued from page 85) Even before the war cut off civilian uses for metal, Reynolds found a new source of demand for packaging supplies in military and lend-lease products. These presented problems of protection against heat, moisture, infestation. To supply this need their laminated foil sheeting was developed.

Food has to be shipped to millions of troops and civilians. There was not enough metal to carry it in cans and not enough cargo space to hold them all. The Reynolds material for the dehydrated vegetable pack was, therefore, avidly sought after by military and lend-lease authorities. The approved Army package for dehydrated potatoes, beets and rutabagas, for example, was developed over a period of 18 months to replace 5-gal. tin cans. The flexible container devised for this purpose replaces 2,450 lbs. of steel and more than 30 lbs. of tin per 1,000 5-gal. containers.

The water-proof match unit is presented by the Red Cross to each embarking service man. It is so constructed that the matches will stay dry under any conditions. The material was formed into a bag, the match book is inserted, and the bag sealed.

When the Medical Departments of the U. S. Army and Navy were looking for a package to hold sulfadiazine tablets they specified the following performance: The package had to resist moisture transmission and prolonged immersion. It had to withstand severe mechanical abuse in a canvas pouch or pocket. It also had to be made so that it could be opened and contents delivered with only one hand. Two different packages, packed by two manufacturers, meet all these requirements. Their difference is in the manner of applying the flexible covering. On one, two sheets of the material are used and sealed together on all four sides. For the other, a folded end wrap is used, but sealed to

make it gas-proof and moisture-proof as well as immersible.

Lifeboat and emergency ration units contain seven 2-oz. concentrated chocolate bars. They were originally designed for the Maritime Commission as a standard unit for lifeboats. Originally it was required that lifeboat rations be packed in metal containers with screw or friction cap that had to be hand-soldered in place. The new package met with such success that it was not only approved by the Maritime Commission, but by Army, Navy and Coast Guard. It is now being used by ship chandlers and steamship companies for rations with which all lifeboats must be equipped. The chocolate bars are inserted in the bag, heat-sealed on top and put into a specially treated asphaltum kraft carton.

Plaster of paris bandages are very hygroscopic and subject to hardening on the absorption of moisture. They must, therefore, be packed to withstand not only moisture transmission but long immersion when shipped to the theaters of war. The foil-laminated sheeting meets the severe tests demanded by the Army Medical Corps. The material also resists penetration of liquid mustard gas.

Drugs, gauze bandages and many other products used for the Army, Navy and for lend-lease are packaged in cans and canisters made from this replacement material. They are said to save from 75 to 80 per cent of the critical material that would be required for similar containers of metal. These containers are convolutely wound from a combination sheet of kraft and asphalt with lead foil on the outside. Tops and bottoms are blackplate. This hermetically sealed flexible metal container is a barrier against water, moisture, gas and infestation.

Credit: Flexible weather-proof packaging materials by Reynolds Metals Co. Cartons, Container Corp. of America, Wilkatow Folding Box Co. and others.



More than an idea, really. It was demonstrated before the war that heat-sealed aluminum foil completely protects hygroscopic products. Dehydrated foods, needing to be kept dry until the consumer gets them, will find heat-sealed Alcoa Aluminum Foil ready, willing and able to do that when the war is won.

Ready, because Alcoa's Packaging Laboratory is studying dehydrated foods and will be prepared to work out with you the particular form of package you require.

Willing, because there will be seven times as much aluminum as in 1939.

So get ready to revise your notions on the cost of aluminum foil.

Able, because heat-sealed aluminum foil is 100% airtight, 100% vapor-proof, 100% waterproof, 100% sift-proof. Light can't penetrate it. Nor can insects or vermin. It keeps foods factory-fresh, as packed.

Imagineering is called for. These and other facts, if dreamed about and blueprinted now, will give you a better postwar package. It is easy to get us to help you plan it. Just write ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh, Pa.

Aluminum
is a
natural protector

Alone, or in combination with other materials, it excels in preserving freshness, flavor, volume, aroma and color of products that are sensitive to air, light, heat, and gain or loss of moisture. Its sparkling beauty makes a handsome package, too.



Think of **ALCOA ALUMINUM**
when you think of tomorrow's packages



ALL-AMERICA PACKAGE COMPETITION

Johnson & Johnson



(Continued from page 95) mercurochrome in alcoholic solutions deteriorate when exposed to the air. Loosely corked bottles on bathroom shelves or in first-aid kits allow air to get to the contents. Some air enters, of course, whenever the closure of a container is removed and then replaced and this tends to destroy the drug's original freshness. These single-application ampoules preserve the drug's freshness and potency until used.

For packing in the small consumer cartons, the ampoules are placed in fibre sleeves on which are printed the ingredients and antidotes. Six of them come in a carton of a convenient size to fit into a first aid kit or in the home medicine chest.

War industries and plants and factories of all types find the ampoules an excellent addition to their own first aid kits. Workers use them readily and even utility linemen carry them for use in case of minor injuries that occur from time to time.

Credit: Transparent cellulose acetate tube by Celanese Celluloid Corp. Fibre sleeve by Stone Straw Co.

★ ★ ★ ★ ★

RCA Victor Division of the Radio Corp. of America

(Continued from page 104) by music stores but also by department and other stores. Many of these have found that because of the display value of the album, children themselves will be attracted to them in toy departments. Both the color and the art work catch the eye of youngsters who are old enough to look for records to play on the home phonograph. The albums have been so constructed that they can be displayed on counters, shelves and

in windows in many interesting arrangements. RCA reports that the sale of children's record sets increased approximately 200 per cent after they had been combined in this album.

Credit: Designed by W. T. Markowski. Corrugated folder by The Hinde & Dauch Paper Co. Transparent rubber hydrochloride sheeting wrap by Pliofilm Division, The Goodyear Tire & Rubber Co.

★ ★ ★ ★ ★

Turpentine & Rosin Factors, Inc.

(Continued from page 101) A fused label has special advantages for a product like gum turpentine. It does not become discolored nor does it come off if the turpentine spills over the outside of the bottle. The label is actually a part of the container and lasts during the life of the bottle. Application of the label is made by the manufacturer. The process consists of heating the glass to a certain temperature, then applying ceramic paints by the silk screen method to the container. After the paint has been applied, the bottles are baked, thus actually fusing on the label. It is permanent and as durable as the bottle itself.

In addition to brand names and directions, the bottle also bears the Seal of Approval of the American Turpentine Farmers Assn., Cooperative.

Bottles are capped with screw-on metal closures and sealed with secondary viscose closures for further protection against leakage and tampering. In the change-over from a production line for metal cans to a line for glass, the company was able to convert without great difficulty. Bottles are automatically filled and capped by machine.

Turpentine & Rosin Factors, Inc., has established nation-wide distribution of pure gum spirits of turpentine, packed and sealed at the point of production. They have found that the new glass container has opened up new avenues for merchandising because of the consumer appeal of the package.

Credit: Bottles and closures by Owens-Illinois Glass Co. Secondary viscose closures by Armstrong Cork Co. Photo of "pushdozer" courtesy of Hercules Powder Co., Inc.



FOOD...

WILL HELP WIN THE WAR

During 1942, our glassine papers have gone to protect almost every kind of food for the fighting and home fronts.

1943 sees our papers participating even more widely on the food fronts.

**WESTFIELD RIVER
PAPER COMPANY, INC.**

Russell, Mass.



ALL-AMERICA PACKAGE COMPETITION

Carlton Lamp Corp.

(Continued from page 97) lamps—the lamps would have to go into that space. They would not fit with the packaging they were given at the time. The packing would have to be improved to take up much less ocean-shipping space.

Forgetting all about the conventional manner of packing, Carlton tackled the problem from the standpoint of obtaining the smallest container that would hold the old unit of 10 and compact enough to fit into a larger carton that would hold 100 bulbs.

A tray was made just long enough for 10 bulbs to be inserted in one row of holes provided for them down its length. Then a folding carton was created that was just long enough for the tray to fit comfortably into it and just wide enough to give the bulbs clearance. The carton was compact and 10 of them stacked in two rows of five filled another folding box that comprised the larger shipping unit of 100 bulbs. This represented real economy in space saving. The 100 bulbs in the new packing took only 22 per cent of the space formerly required. Also in their new package, the bulbs stood the shipping hazards much better.

Carlton now has no fear that when their bulbs



are being sent abroad or even transported in this country packaging is taking up more shipping space than is actually necessary. The company has no data covering the effect of the new package on consumer sales, because this was not considered in this packing problem. It probably will not be seriously considered for some time, since Carlton's production of flashlight bulbs is being almost entirely absorbed by direct war uses.

Credit: All cartons by Keystone Folding Box Co.

☆ ☆ ☆ ☆ ☆ ☆ ☆

Morton Salt Co.



(Continued from page 92) Civilians will no doubt find the tiny, packet dispenser convenient for inserting in lunch boxes and for taking along in a picnic basket. A convenient shaker for a small quantity of salt will probably prove of great service to the housewife who must fix lunches daily for her husband and for children who carry their noon meal to school. The little packets contain half an ounce of salt—just about enough for seasoning food for one meal for a person. The packets are not too

small to carry information which the maker needs to place on his packaged product. The present ones carry the product name, the well-known Morton trade mark character of a little girl carrying an umbrella and the lines, "When it rains, it pours." Directions for using the package are very simple and are given on the back of the envelope in a couple of lines.

Credit: Shaker envelope, U. S. Envelope Co. Designer, Neo-style, Inc. Sealing machine, Amsco Packaging Machinery, Inc.



PAPER PACKAGE FOR SHORTENING CAPTURES ALL-AMERICA AWARD



THE WINNER!

ANOTHER CHAMPION can now join Sutherland's Hall of Fame. The "Trend" vegetable shortening package has just won the title in the grocery products division of the 12th annual All-America Package Competition.

Naturally, Sutherland is proud of the part it played in developing this award winner. But of far greater importance is the fact that this paper container solves one of the most difficult packaging problems posed by the war.

The "Trend" package—a complete conversion from the former metal can—is a spiral-wound paper container with a glued sleeve. An attractive red and white label is applied to the outer container and lid. Inside the container is a cellophane bag, and across the top a cellophane disc which must

be broken before the contents can be removed. The consumer opens the package by cutting the label on a dotted line near the top. This enables her to remove the cover. No refrigeration is required for the new shortening container which withstands normal shelf life, handling, and kitchen use as well as its metal cousin. And, another significant advantage—it is filled with existing equipment in the Humko Company plant, Memphis, Tennessee.

Winning recognition in the All-America Package Competition is no new experience for Sutherland's packaging engineers. These men, who have been developing "champions" year after year, are now busy perfecting paperboard packages that help win the battle of supply at home and on the battle front.

Send for a copy of our booklet "Wartime Packaging"

SUTHERLAND PAPER COMPANY
KALAMAZOO, MICHIGAN



ALL-AMERICA PACKAGE COMPETITION

F. N. Burt Co., Inc.

(Continued from page 82) by R. L. Watkins Co.; Calox tooth powder, manufactured by McKesson and Robbins, Inc.; Listerine tooth powder manufactured by Lambert Pharmacal Co., and Yardley's Lavender and April Showers talcum powders.

The paper compacts, according to the company, are possible because of the development of a particularly strong and pliable board. Mirrors are secured in the lids between two pieces of board, one of which has a die-cut opening to allow the mirror to show through. A molded tray of ethyl cellulose plastic, colored to blend with the case, is placed in the base to hold the loose powder. Hinges for the container are also molded of plastics. Opening tabs are of sheet plastic. The tray, serving as a "collar," has sufficient spring to effect a closure that is tight, yet at the same time is easy to manipulate. It is made with a "foot" so that it cannot pull out. The fibreboard used for the inside layer on both base and cover assures rigidity and will not wear down with continued use. The compacts are lithographed right on the board, before it is coated. Both lids and bases are domed under pressure to give them curved form.

There had been paper lipsticks before 1942, but these old containers were of the push-up type. The new paper one is a swivel and works with the same efficiency as similar containers of metal although no attempt was made to simulate the appearance of a metal stick.

Construction is as follows: The lipstick fits into a cup made of acetate or tin scrap, both of which have been available up to this time. Outer tubes are made of a specially lacquered paper to increase rigidity and durability as well as to provide an attractive, decorative surface. Fibre and kraft spirally wound and colored plastic make the sturdy track tubes. End pieces and screw base are made from vegetable ivory dyed to shade. Vegetable ivory is made from a South American nut, so far

plentiful. The lithographed wrap is treated with Burt's Lamlac to resist soil and grease. Inside of the cover is lined with red paper to camouflage a messy appearance after the stick is in use.

In developing the paper containers for tooth powders and talcum powder, the company tried to make the alternate can appear as much as possible like the familiar metal cans used for this purpose. In this way, users would not have to forfeit brand identity in making the change-over. Outstanding characteristic is the dispensing feature devised for the containers. All have an opening on the top of the cylinder. When the container is not in use this may be closed. This is done on the larger containers by means of a small knob which turns a disc over the opening. On the smaller containers, the knob is omitted and the opening and closing feature is provided by the outside disc which turns around to cover the opening. Omission of the knob helps to keep the price down on the smaller unit sizes. On some of these small containers, the disc is notched to make for easier handling.

McKesson and Robbins, Inc., is using these containers in three sizes for Calox tooth powder and reports that all three can be filled on existing packaging machinery. Lambert Pharmacal Co., which formerly used oval cans for its dentifrices, was at first skeptical in adopting these paper containers because they are round. They believed the oval containers looked larger, and that customers would feel they were not getting the same amount of product in the round shape. This problem, however, was thoughtfully taken care of by choice of design. It was found that a dark oval on a light ground enabled the eye to read while it traveled all the way up the sides of the package and thus overcame the seeming disadvantage of a change in shape. The Dr. Lyon's containers have a specially molded paper top to make the package resemble their metal one more closely. For the Yardley talcum powders, a new method of powder ejection was designed, but the dispenser is similar to that for the others.

Container bases and cover heads are lined with glassine to aid in moisture retention. Outside of the base is dipped in a "sealing" solution to make the package fairly impervious to moisture.

One of the most pressing packaging problems is the creation of a substitute for the metal closure which used to consume hundreds of tons of steel annually. This steel, of course, is now no longer available for many products. F. N. Burt's outstanding achievement in this field is the creation of two types of closures—a screw cap for the Noxzema jar and a lug cap of heavy weight fibreboard to top the tobacco jars of (Continued on page 140)



The bomb with the tattle-tale can

You watch a soldier ram a "tin can" (of all things) into the tail of a bomb. You wonder: "What's that for?"

Bombs used for training our bombardiers contain sand instead of high explosive. Yet every practice bomb dropped must "explode" to show observers the hit.

The can holds five pounds of black powder. When the bomb lands, the powder explodes with a puff of smoke. The hit is recorded by aerial camera. What the cadet bombardier learns from it will some day mean trouble for an Axis target.

You know, of course, why this powder for the Army is packed in cans. Wet powder's no good. Like food, oil, and ammunition, it must be completely protected.

Metal containers "can take it." They don't break, chip or tear. They protect against light, heat, dirt, moisture, insects. They get there—safe.

That's why millions upon millions of cans are going to war. That's why you can't get all the things you used to in America's favorite container.

The can will come home some day—better than you've ever known, thanks to our job as packaging headquarters for Johnny Doughboy & Co.

NEED HELP ON WAR WORK?

Metal containers are delivering the goods safely—foods, supplies, and bullets arrive ready for action. Continental is making millions of these cans along with other war needs, including plane parts.

Yet, rushed as we are, we can still take on more! Right now, a part of our vast metal-working facilities for forming, stamping, machining and assembly is still available. Write or phone our War Products Council, 100 East 42nd St., New York.



lets there—safe—in cans

CONTINENTAL CAN COMPANY

HELP CAN THE AXIS — BUY WAR BONDS



ALL-AMERICA PACKAGE COMPETITION



(Continued from page 138) P. Lorillard & Co. These closures represent one of the most important current developments since they have such far-reaching effects on so many different products and industries.

Credit: All containers made by F. N. Burt Co., Inc. Engineering construction, Morrison-Gatewood Corp.

Loose powder compacts for Avon Products, Inc.—Package parts: board, Spaulding Fiber Co., Inc., Strathmore Paper Co., Robert Gair Co., Inc.; tray and tabs, Dow Chemical Co.; Mirror, Naugatuck Glass Co., Inc.; hinge, S & S Machine Co.; lacquer for spraying top and bottom, Pratt & Lambert,

★ ★ ★ ★ ★ ★ ★ ★

E. J. Kelly Co.

(Continued from page 99) as well. Comments from customers indicate that the paper can has advantages over the metal container. Pressmen say that regardless of the number of times the lid is removed from the can, the lid keeps a tight fit. This feature prevents air from hardening the ink in the container.

★ ★ ★ ★ ★ ★ ★ ★

The Bayer Company



Inc. Designer, Robert Nyden. Lithograph design, Janet Kegg.

Avon lipstick—Package parts: gummed kraft, Nashua Gummed & Coated Paper Co.; fibre, Spaulding Fiber Co.; cellulose acetate, Tennessee Eastman Corp.; molded by Pierce Plastics, Inc.; cover lining, Williams Paper Co.; base band, Franklin Cowan; seal on bottom, Avery Adhesive Co. Filled by Allied Products.

Oxzyz lipstick—Package parts: board, Spaulding Fiber Co., Inc., International Paper Co.; papers, Hampden Glazed Paper & Card Co., Atlantic Gummed Paper Co.; cellulose acetate, Tennessee Eastman Corp., molded by Pierce Plastics, Inc.; vegetable ivory top and bottom, Warsaw Button Works. Lithograph design, William H. Wulffleff.

Dr. Lyon's tooth powder—Package parts: papers and wood pulp, International Paper Co.; board, Robert Gair Co., Inc.; glassine, Deerfield Glassine Co.; molded paper top, Sonoco Products Co.; plastics dispenser, material by Celanese Celluloid Corp. and molded by Sterling Injection Molding Co.

R. L. Watkins Co. trial-size dental powders—Package parts: board, Chemical Paper Mfg. Co., Robert Gair Co., Inc., International Paper Co.; papers, Deerfield Glassine Co., Nashua Gummed & Coated Paper Co.; rivet, John Hassell, Inc.; turning disc, Great Lakes Bottle Cap Co.; rivet bonderized and enameled, H. S. Products; sealer in center of rivet, Nixon Nitration Works; solvent, Pierce & Stevens, Inc.; coloring, National Aniline & Chemical Co., Inc.

Calox and Lambert dentifrices—Knob closure, designed by William W. Smith.

Yardley's talcum powder—Package parts: board, Chemical Paper Mfg. Co., Robert Gair Co., Inc., International Paper Co.; papers, Wyomissing Glazed Paper Co., Nashua Gummed & Coated Paper Co., Continental Printing Co., Hampden Glazed Paper & Card Co.; felt, Charles P. Mugler & Co. Designer, Reco Capey.

"The success we have had with the paper container to date has resulted in our decision to continue using it for the duration."

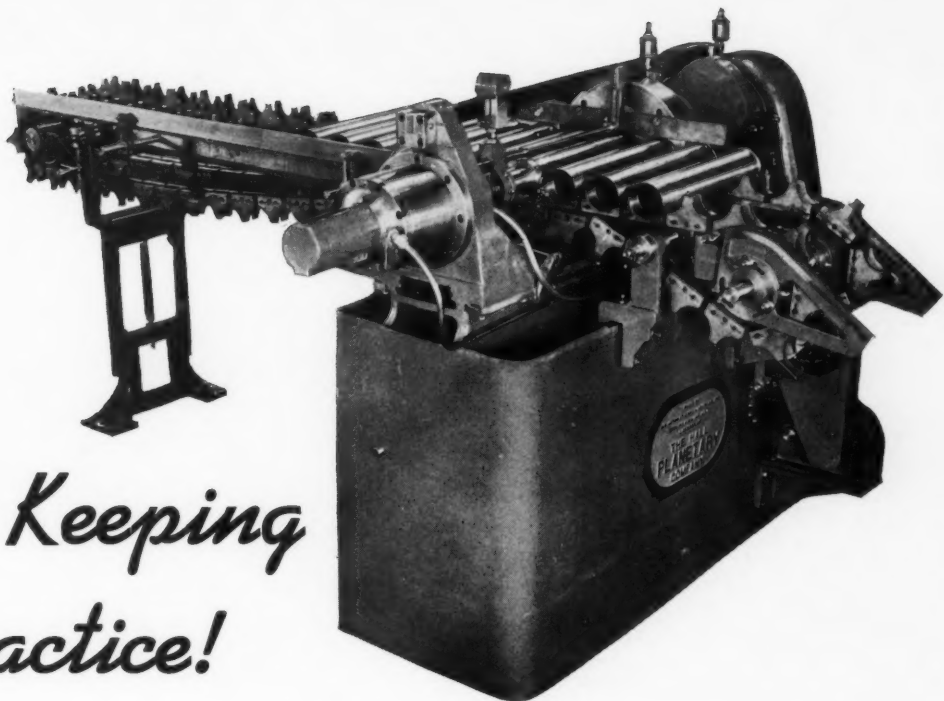
Credit: Container, Sealright Co., Inc. Label, Kalamazoo Label Co. Press photo, courtesy of N. Y. Daily News.

★ ★ ★ ★ ★ ★ ★ ★

(Continued from page 94) reason for the package change. These dispensers serve as shipping cartons and require only to have the top folded back in order to effect a poster. A blank circle is provided on this for the dealer to list the price. The books of tablets are placed cross-wise of the carton, but the front panel of the latter carries the product name and maker's identification so no advertising value is lost when the books are displayed in the carton on the drugstore counter. Cartons use color panels for added attention value.

Credit: Packets created and produced by Ivers-Lee Co. Fully covered by U. S. and foreign patents. Printing of outside folder by The Nevins-Church Press. Cellophane by E. I. du Pont de Nemours & Co., Inc. Paperboard, Lowe Paper Co.

We're Keeping In Practice!



When we started a year ago to build machine tools—specifically, Planetary Thread Milling Machines—we knew there would be no more time for new design work on our regular line of packaging machinery. Imagine our surprise when we shortly found ourselves with a large order for these Thread Milling Machines requiring special automatic loading conveyors. The designing of these was right down our alley and we capitalized on our past knowledge and experience in building such equipment for our packaging machinery.

It is a far cry from the days before the war when our desks were cluttered with sample cans, boxes, bottles, and carton blanks. Now

the samples are cartridge cases, shells, spark plugs, air cylinders, and rifle parts—all of which are threaded on the Planetary Thread Millers which we are building.

We're still building packaging machinery—on priority, of course—and we're still giving our customers fine service on repair parts to keep their present machines in good operating condition for the duration.

We're proud of what we're doing now, but we're looking forward to the time when we will be back at our own job of designing and building the best in paper box making and packaging machinery.

UNITED STATES AUTOMATIC BOX MACHINERY CO., INC.

OWNING AND OPERATING NATIONAL PACKAGING MACHINERY CO. — CARTONING MACHINERY CORPORATION

18 ARBORETUM ROAD

— ROSLINDALE

— BOSTON, MASS.



ALL-AMERICA PACKAGE COMPETITION

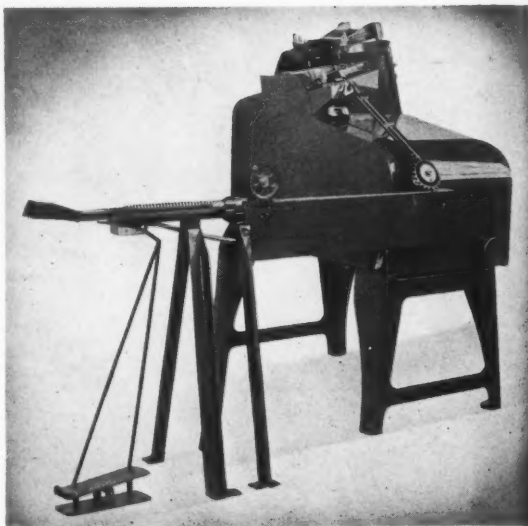
New Jersey Machine Corp.

(Continued from page 87) Ten people used to be required to load .30 calibre ammunition in the standard boxes in order to keep a labeling machine going continuously. The operation of packing the ammunition began with a great bulk of scrambled cartridges. These had to be unscrambled and 20 of the cartridges placed in each box. What was wanted was a box loader—a machine that would unscramble the cartridges and feed them to operators who would place them in the boxes. Now, a new mechanical unit does just that. It permits three people to do the work which took 10 workers and the unit does it in the same length of time, keeping the labeling machine continuously active, with the same quantity of boxed cartridges.

Boxes of .45 calibre small arms ammunition carry 50 cartridges. These cartridges came to the packing line in a scrambled condition, just as did the .30 calibre ammunition. Operators picked out the cartridges by hand from the heap and packed each one individually in the box. No figures are available on the average speed of packing on this job.

A device was invented which takes the pile of cartridges, mechanically unscrambles them, aligns them in a passage five abreast—just the width of the standard box—and all the operator has to do is to slip the box into the loading station, insert a blade behind 10 rows of cartridges, sweep them forward into the box, where they fill the box. Their perfect alignment is maintained. The operator has time enough to place the cover on the filled box before slipping another empty box into the loading station. Six boxes per minute is the rate of packing.

Three hundred per hour appears to be a fair rate of speed for the labeling of cartridge cartons. That was the rate maintained by rapid hand labelers and it was good enough for peace times. However, it was far short of the speed necessary for production for war. Besides, the method of applying adhesive



Semi-automatic box loading machine.

caused such excessive moisture that labeled cartons had to be conditioned in an oven to dry out the excess moisture. The existence of moisture would cause corrosion on the cartridges.

At present, newly developed, fully automatic labelers take the cartons on a conveyor, apply the adhesive, then press down the label for perfect anchorage. Only a thin film of adhesive is used and this film is accurately controlled by mechanically operated devices. The film is so thin that the so-called backing process is no longer required. Most significant fact of all, of course, is that production has been increased tremendously. The labeler operates at a speed of 45 boxes per minute and 2,250 boxes per hour as against the previous 300 per hour.

Credit: Machine-gun fabric belt loader, box loader for .30 calibre cartridges, box loader for .45 calibre small arms ammunition, box-sealing and labeling machines by New Jersey Machine Corp.

★ ★ ★ ★ ★ ★ ★ ★

Standard-Knapp Corp.

(Continued from page 89) increased production enormously. The dial loader automatically unscrambles empty brass shells from a hopper for single line feed. These brass shells are fed in an upright position to receive a charge of powder from a hopper feed. Then the projectile is automatically inserted at the open end of the shell and attached to it. Subsequently, the projectiles are unscrambled from a hopper for single line feed and placed in the required position for insertion in the charged shells. The machine which fills calibre .30 belts laces the bullets automatically into cotton machine gun belts

at a speed of 260 per minute. Calibre .30's, either all of one kind or an assortment, are fed by this machine from cartons to channel holders. As the channel holder on the machine is emptied, it is quickly replaced with a filled channel holder so that operation is continuous. As the filled channel holder revolves, the shell is ejected from the lower end of each channel and is laced into the belt.

Credit: Waxing machine and belt filler by Standard-Knapp Corp. Automatic dial loader developed by Standard-Knapp Corp. in conjunction with U. S. Field Artillery.

DOES ANCHOR OFFER
RESEARCH AND LABORATORY
SERVICE, MR. HILL?

YES—AND IT'S
YOURS FOR THE
ASKING!

Today, products are being packed in glass that never were before. As a result, new problems are constantly arising. Suitable packages must be designed for products with wholly different chemical and physical characteristics. New processes are being developed. New and better liner materials, substitutes for metal closures and other substances, are always coming into the picture, to be tested, checked, approved, discarded.

That's why experience today is more vital than ever—knowledge based on scientific facts—not only

about individual products, but also the variable factors that affect them. And experience means Anchor Hocking. Down through the years, the engineering and research experts in Anchor Hocking's laboratories have contributed many improvements—in the design, strength, weight and manufacture of glass containers... in closures, liners, sealing gaskets and sealing machines. The services of these laboratories—and the men who make them among the finest in the industry—are available free to any organization with a glass packaging problem.

J. O. HILL, one of Anchor Hocking's ablest and most popular men, has been a member of the Anchor Hocking family for 24 years.

**ANCHOR
HOCKING**



GLASS & CAPS

ANCHOR HOCKING GLASS CORPORATION LANCASTER, OHIO





ALL-AMERICA PACKAGE COMPETITION

The Ohio Boxboard Company

(Continued from page 84) of the case rather than by the fruit which becomes dented and bruised when jostled about. Because fresh produce is less likely to spoil if given proper ventilation, the case provides for this. There is good circulation of air within the box at all times.

When delivered to the user, the cases are partially assembled. They require a minimum of storage

space and assembly is completed within a short time and with little effort. They are lightweight and workers find them easy to pack.

Wood on this container is scrap material, called scrap ends at the mill. By combining it with paper, there is a saving of the other wood cuts which are made available for vital war production.

Credit: Case developed and made by The Ohio Boxboard Co.

★ ★ ★ ★ ★ ★ ★

Bemis Bro. Bag Co.

(Continued from page 83) wall is coated with a special weather-proof, resistant material to stand up under the severest weather conditions. Glue used in making the bag seams is a water-resistant casein glue. Thread used in stitching the bags is a specially prepared mildew-proof type.

The outside sheet on the currently used bags is an improvement over the original asphalt laminated sheet tried out about the first of last year. In order to satisfy army authorities that the bag had weather-proof qualities, it was tested in a weatherometer for over 300 hours under government specification tests for roofing paper. This test was

equivalent to three years in the open and the bag stood up under heat, moisture and ultraviolet rays. Inside walls of the original bag had stood up in the field for 11 months and remained in satisfactory condition. However, in developing the outside sheet, the bag manufacturer tried out over 50 different types of paper and used many different formulas in preparing the protective coating for the sheets, before the present coating was arrived at. This one has now been approved and all bags use paper and coating material similar to the type tested for all varieties of liquids.

Some of the first bags made by the manufacturer for sand stood up satisfactorily for a period of over 10 months in defense works at Fort MacArthur in California. Several hundred thousand of these multiwall paper sandbags have gone to the United States Government for machine-gun and anti-aircraft gun emplacements for army, navy and civilian air raid shelters, for factories, offices and for other civilian defense and protection.

Credit: Kraft paper by St. Helens Pulp and Paper Co. Asphalt laminated paper by Longview Fibre Co. Laminating of paper for liquid-holding bag by Western Wax Paper Co. Cartons for liquid-holding bags and coating material for sandbags by Pioneer Flintkote Co. Thread by Bemis Bro. Bag Co. Bags developed and made by Bemis Bro. Bag Co.



PICTURE OF A MAN WHO'S FOUND THE ANSWER...

*to today's shortage of metal
and molded closures*

THIS man has solved his closure problem by replacing hard-to-get closures with Armstrong's Embossed-Top Corks.

And you can do the same, because these good-looking corks are available for use on your liquor, wine, and other glass packages.

Armstrong's Embossed-Top Corks make such fine closures that they are preferred—even in normal times—by a large number of outstanding firms.

These corks are offered in a variety of eye-appealing styles. They can be embossed with your product name, trade-mark, or private design in any color scheme you may want.

That's your guarantee of distinction despite wartime standardization of the package itself.

Armstrong's experience of over 80 years in the manufacture of quality corks assures you of dependable, easy-to-use closures. We would be glad to consult with you on any closure problem you may have.

Write: Armstrong Cork Co.,
Glass and Closure Div., 5904
Jackson St., Lancaster, Pa.



ARMSTRONG'S EMBOSSED-TOP CORKS



ALL-AMERICA PACKAGE COMPETITION

Sun Oil Company



(Continued from page 112) Users report that the fibreboard drum is sturdy and that it is efficient and easy to handle. The top fits down on a rim in the same way as the usual drum and it is secured by a taping in shipment. There are no special instructions needed for those who are to handle the drum in storage or shipping. Just the line, "This side up," is placed on the lid. A protective sheet of paper is placed over the product before the lid is fitted on the container. This simply serves as an additional protective feature.

Credit: Designing and fibreboard by Container Corp. of America. Wire stitching by Acme Steel Co.

★ ★ ★ ★ ★

Shellmar Products Company

(Continued from page 86) cartons which can be placed on store counters are furnished dealers. These cartons display the pouches effectively and aid the consumer in helping himself to the product. In these days of labor shortage, self-service dispensing cartons are heartily welcomed. Shellmar Products Co. in developing the laminated glassine, laminated to MSAT cellophane pouch for soup mixes was one step ahead of the government's restrictions on metal containers. Now, Shellmar is thinking ahead again in terms of even further re-

strictions and has developed a newer type of glassine pouch. This pouch has a special coating for heat sealing also. At this time the pouch is being used by Minute Man and so far has given satisfaction. When and if further restrictions come, Shellmar feels it once more has the answer to the packaging of soup mixes.

Credit: Soup pouches developed and made by Shellmar Products Co. Cellophane, E. I. du Pont de Nemours & Co., Inc. Glassine, Westfield River Paper Co., Inc.

★ ★ ★ ★ ★

Basic Food Materials, Inc.

(Continued from page 93) proof and is laminated to the paperboard by a water-proof adhesive which was developed for the purpose by the box manufacturer. Such an adhesive is necessary as steam forms while the meat is cooking and the steam would destroy the adherence of a non-waterproof adhesive. Both the corrugated outer tray and the inner liner will stand temperatures over 350 deg. F. without breaking down. Because the pans allow the product to chill in its individual inner lining and absorb its own juices, there is less shrinkage of the product.

Another advantage is that of cleanliness. The inner liner is used once and then discarded.

The complete pan is sent to the packer in a knocked-down state. This includes the corrugated outer pan and greaseproof, moisture-proof inner lining. Pan and lining are easily folded and set up—there are no staples and no parts to be glued. The inner liner is inserted into the outer pan and the unit is filled, ready for the oven. On removal from the oven, the meat loaf is allowed to cool in its individual inner liner package, which is lifted out

of the corrugated pan. The latter is immediately available for re-use.

These pans are being made in 2-lb., 3-lb., 5-lb. and 10-lb. sizes. Ever-increasing uses are being found for these versatile containers. Beans and macaroni and cheese are also being baked in them.

Credit: Pan developed and made by The Ohio Boxboard Co.



MAJOR AWARD
GOES TO MORTON'S FOR
SALT SHAKER ENVELOPE

BY *Neostyle*



SHAKES
"WHEN IT RAINS IT ~~POURS~~!"



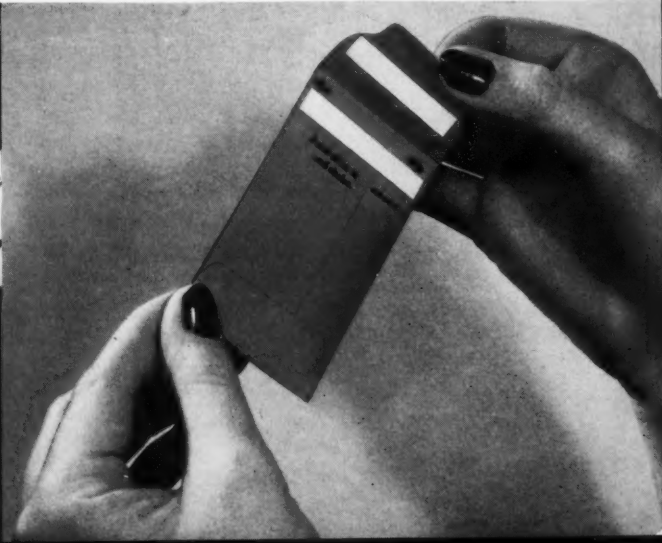
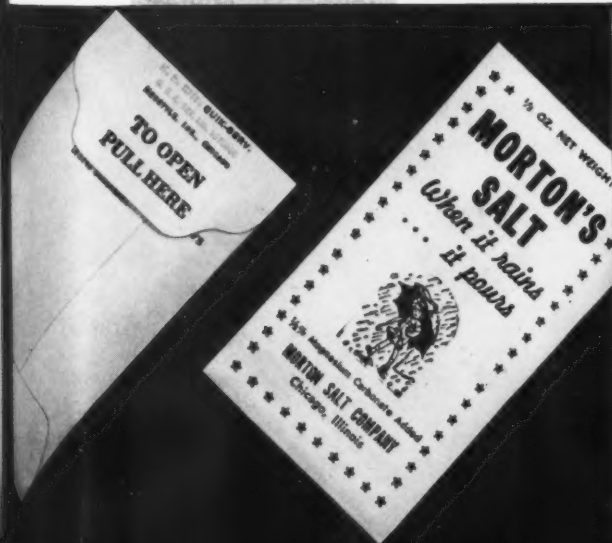
PRACTICAL solutions to packaging problems is a specialty we've developed to an unusually high degree. This *specialized* aid has long proved effective for many packagers in successfully protecting and merchandising products for civilian consumption. And now, with the advent of war, Neostyle experience and facilities are proving valuable to manufacturers in the packaging of many varied products for the use of our fighting forces.

The unique Salt Shaker Envelope produced and *filled* by Neostyle for The Morton Salt Company, has earned first award in the 1942 package competition. It is one of the items in a U. S. Army Field Ration unit. Here is an example of the *practical* approach we apply to an unusual packaging problem. Packagers of dried foods, meats, cheese, drugs, candy, tobaccos . . . even aircraft parts, will do well to investigate the exceptional service we give. As in this instance, we supply the container, put your product into it, make delivery to procurement agency and handle all details required by government authorities. Write us about your problems. Ideas, suggestions, samples and cost estimates incur no obligation.

Neostyle INC.
ESTABLISHED 1898

410 NORTH WABASH AVENUE, CHICAGO, ILL.
PRINTED TRANSPARENT BAGS, ENVELOPES, WRAPS & RIGID CONTAINERS

BACK AND FRONT VIEWS OF MORTON'S SALT SHAKER ENVELOPE. PATENTED QUIK-SERV SEAL PERMITS INSTANT OPENING. DIE-CUT SLOTS PROVIDE SHAKING FEATURE.





ALL-AMERICA PACKAGE COMPETITION

Axton-Fisher Tobacco Co.

(Continued from page 102) A third cigarette is Axton's Vintage Specials. The tobacco used is a special new blend, one of the finest they have been able to create. In order to package these cigarettes properly, they knew they should have a design that would stress the luxury of the product itself.

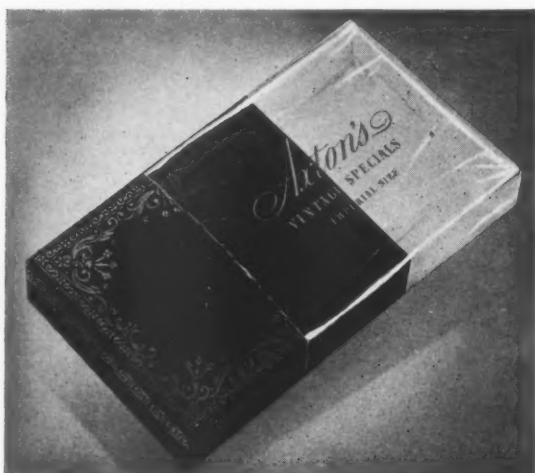
The usual wrapper would not give the effect desired, so a set-up box, covered with an imitation leather paper, was chosen. A hand-tooled simula-

tion was given by the use of a gold scrolled border design, printed on the padded lid. In order to duplicate as closely as possible a personal cigarette box, the name, "Axton's Vintage Specials," is printed only on the removable cellophane box wrap.

At the same time that the cigarette packages were redesigned for Spud and Fleetwood, designs were executed for special display units. Both the Spud and the Fleetwood displays are three-carton pieces which can also serve as dispensers.

For Fleetwood an additional single-package unit was created with the purpose of promoting this new product in as interesting a way as possible. Under a dome of rigid transparent sheeting is a package of Fleetwood's which rests on a rich-colored textile background. A counter card is also given dealers. It plays up the slogan, "A Cleaner, Finer Smoke!"

Credit: Spud packages and cartons designed by R. B. Wemyss. Fleetwood package designed by McCann-Erickson, Inc. Fleetwood wrap by American Colortype Co. Spud wrap by Reynolds Metals Co. Fleetwood and Spud cartons by Gardner-Richardson Co. Axton's Vintage Specials box by F. N. Burt Co., Inc., and carton by Finger Box Co. Spud three-carton display by J. V. Reed Co. and Strobbridge Lithographing Co. Fleetwood three-carton display by Latham Process Corp., single package display by Everett Transparent Container Co. Fleetwood counter card by Zeese-Wilkinson Co. Cellophane by E. I. du Pont de Nemours & Co., Inc. Printing on cellophane over-wrap for Axton's Specials package by The Dobeckmun Co.



☆ ☆ ☆ ☆ ☆ ☆ ☆

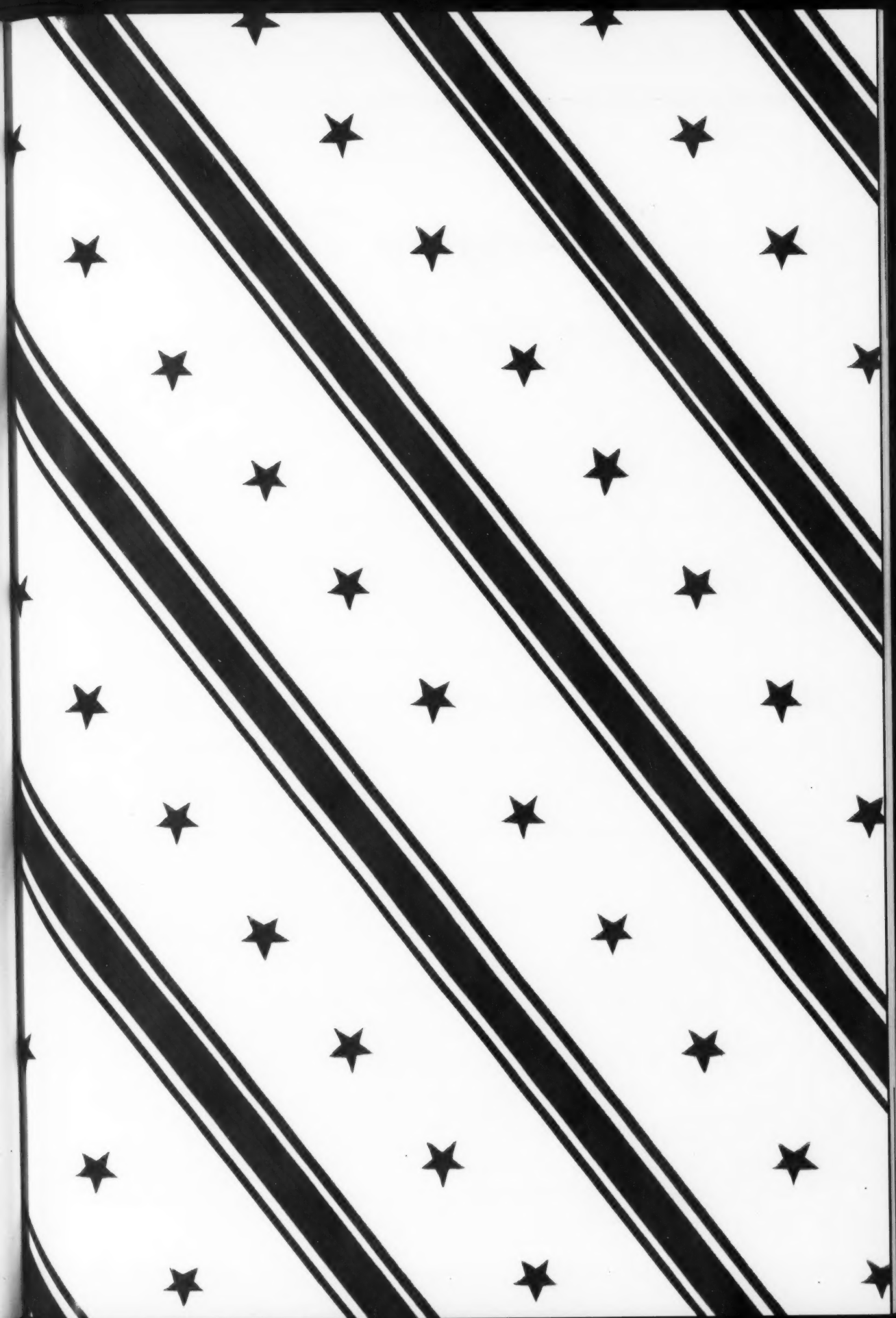
Loft Candy Corp.

(Continued from page 90) packaging program. Consequently, the first step of management was to introduce employees to the new packages. This was done by special photographic, plastic-bound promotions to selling forces. Thought behind this was that the best boosters are company people themselves. Sell them first and they will sell the customers. All these promotions were released packaged in specially designed packages.

The packages were so attractive, that they im-

mediately had the desired psychological effect on employees and through this upon customers as well. Just look at this beautiful Roses and Lace box. Think what a difference it would make to you, if you were a sales girl and received merchandise so packaged to offer your favorite customers.

Credit: Box wrap designed by Don Couper. Wrap lithographed by Lutz and Sheinkman. Typography by Typographic Designers. Finished artwork, Roland Co. Box produced by Loft Box Dept.



Packaging Theme for the duration



Swing to PATRIOTIC PAPERS for the duration — that's the best way to tie your merchandising in with the public's thoughts and consideration.

Smart merchandising will call for the use of colors and designs with patriotic sentiment — timely and in good taste.

This sample shows one of our PATRIOTIC PAPERS — there are others too, which you will want to see. Just write us for a sample set or for working sheets.

This sample • KW-594-F

ROYAL PAPER CORPORATION

Manufacturers of Decorative Papers

**ELEVENTH AVENUE AND 25th STREET
NEW YORK, N. Y.**

*** BUY ALL 3**



**ENGINEERING
AND DESIGN**

TOOLMAKING

**PLASTIC
MOLDING**

*
We're a bit proud of our brand new plant in Fairfield, Connecticut—beautifully equipped with the latest presses for all types of molding.

But mere molding presses aren't enough—we have a complete engineering staff (including styling and product development), plus unusual tool-making facilities.

Let us show you how "BUYING ALL THREE" will give you wartime efficiency and peacetime economy.

BRIDGEPORT

For post-war plastics, think of Bridgeport

BMP
Bridgeport Moulded
PRODUCTS INCORPORATED
BRIDGEPORT CONNECTICUT



Ever Eat RAW FISH?

RAW FISH may not sound very palatable . . . but it can mean the difference between life and death to a shipwrecked sailor.

So the United States Navy is now equipping life boats and life rafts with *cans* containing fish hooks, lures, lines, jigs, spear and gaffs . . . to be used to catch fish to supplement emergency rations.

CROWN CAN COMPANY, PHILADELPHIA • NEW YORK • Division of Crown Cork & Seal Co. • Baltimore, Md.

**U. S. Navy Life Boats
now carry CANNED
Fishing Tackle!**

This emergency fishing kit is supplied not only to the Navy, but also to the U. S. Maritime Commission by the Edward K. Tryon Company of Philadelphia . . . and we're proud to say much of it is packed in Crown Cans specially designed for the job.

Cans for packing fish is an old story. Canned fishing tackle is one of the new jobs the war has brought to Crown Can!

★ ★ CROWN CAN ★ ★

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Writing Standards That work

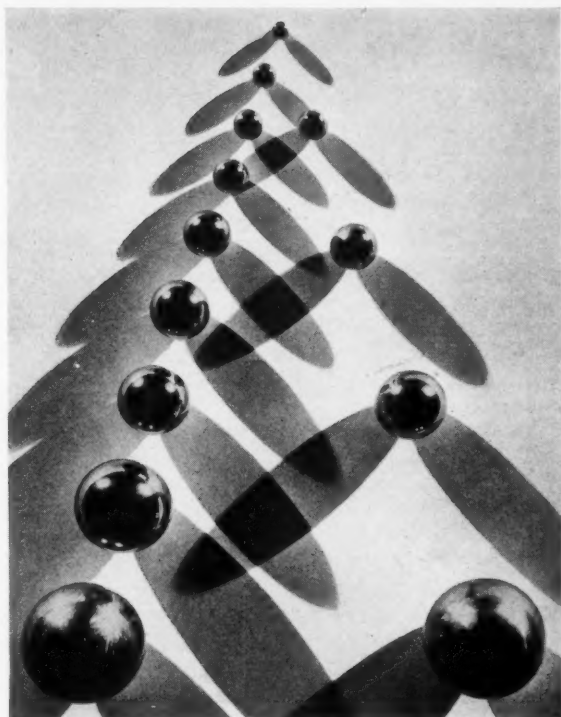
by Dr. John Gaillard*

Every branch of industry and war production benefits greatly by the experience that has already been collected by more than twenty national standardizing bodies during a quarter of a century. Principles and techniques for the establishment and maintenance of industrial standards have crystallized from the enormous amount of standardization work done in the several countries concerned. The American Standards Assn. (ASA), with headquarters in New York, for example, has so far approved about 600 standards and some 3,000 technical experts are working on committees organized under ASA procedure.

The experience thus gained may be divided into two major parts. One concerns the technique of developing standards and the other, the organization of standardization work—the setting up of the machinery to produce standards. Those concerned with the practical use of standardization may want to know what general rules have to be observed if standards are to help men and women in their work without giving them the feeling that their personality or style is being cramped.

Reduced variety

The smaller the variety of things to be made, the better industry can concentrate on their manufacture and apply mass production methods. Few things are so exasperating to the manufacturer pressed for getting out "volume" as to have to make small lots of many items. Where conditions have become bad in this respect, the procedure known as "simplification" may be applied. This consists of weeding out types and sizes or even entire lines of products that are deemed superfluous in covering the existing needs. As applied by the Division of Simplified Practice of the National Bureau of Standards, simplification consists solely in the selection from an existing variety of products of those items whose manufacture is to be continued, while the remaining items are to be dropped. This selection is made on the basis of the sales records of the manufacturers in the branch of industry concerned. No changes are proposed in the items to be continued in a program of simplification. However, it will often appear that an adjustment of certain sizes or ratings would be desirable, for example, because the remaining line of products would show a more logical step-up. Such changes, usually to be based on technical considerations, do not come



"Preferred Numbers" systems can be an invaluable aid in choosing a range of sizes in packaging. "Preferred Numbers," applicable to dimensions and contents of packages, are illustrated here by steel balls. At left, their sizes step up (or down) by 25 per cent and at right, the progression, stepping up or down, is 60 per cent.

under the accepted definition of "simplification," but lie in the field of standardization.

The question arises: What can industry do to plan the minimum variety of products in a certain line that will cover the entire range of the customers' requirements? How many different package sizes, paper qualities, shades of color or metal sheet thicknesses are to be laid down in a standard to give the customer a sufficient choice? If such a plan can be worked out, the industry will avoid, by advance planning, the necessity of having to cut down variety later on, by simplification. In other words, it will be able to use prevention instead of cure. The chance that such a plan is practicable is, of course, greatest in a new industry where no large variety of products has as yet grown up. Whether the minimum required variety of products be established by "simplification" or by planning, and whether the subject be airplanes, drygoods, foodstuffs or packages, designers and standardizers have here an invaluable guide in the system of Preferred Numbers, approved as an American Standard¹ and recommended by the International Standards Assn. (ISA) for use in all industrial countries. This standard will help anybody who has to divide a certain range of requirements into the smallest number of sub-ranges satisfactory under given conditions.

Need of being specific

Another matter of primary importance in establishing strict, yet flexible standards, is to determine carefully what are the essential requirements to be covered by each standard. Everything additional to what is just needed for good per-

* Mechanical and Consulting Engineer, American Standards Assn. In *Modern Packaging* for March, 1943, Dr. Gaillard showed how standards are a constructive force in human work in his article, "Do Standards Stifle Individualism?"

¹ Preferred Numbers, Z17.1—1936

formance is so much ballast for those who have to follow the specifications. For example, if a product has to be packaged in a box of a certain type and content, but the three main dimensions of the box can be left optional within wide limits, then just give the limits, in the standard. Or, the designer may have to remember that his demand to place a label on a bottle at a specific height may require a change in the existing labeling machine and hence, increase cost. Therefore, unless specification of that height is essential, he should omit it.

On the other hand, where essentials are concerned, a standard should state its requirements as clearly and completely as possible—preferably in numerical values. There is no use in specifying "best quality" or "sound workmanship" unless there is an accepted code giving standard definitions of such terms. Usually there is none. To say that the *experts* in the field all understand what is meant by a non-defined term may lead to great disappointment. The experts may disagree, as has often appeared when a case goes to court. The parties involved then come to the conclusion, at the price of many worries and great expense, how much standard terminology or standard definition would have been worth to them. A purchaser and a supplier of any article that involves color may now base their mutual agreement on the American War Standard, Specification and Description of Color (Z44—1942), recently set up "to recognize and recommend a basic method for the specification of color and to facilitate its popular interpretation."

Importance of tolerance

The recommendation to be specific and state requirements in exact terms must be followed at once by the warning not to be unnecessarily *exact*. With all the marvels of accuracy that modern science and industry have achieved, the fact remains that human work has its limitations. In mathematics, we talk about a line, but we cannot draw one since it is defined as having no thickness. We can make an appointment to be somewhere at 4 P. M., but actually we can hope only to arrive slightly before or after that time. Usually, a few minutes do not make any difference and thus we enjoy a "tolerance" on the exact hour of our appointment.

In regard to industrial standards, then, we can say: Whenever you have to be specific and exacting in regard to some requirement, state to what extent a deviation from the exact

or nominal value is permissible. That is, state the limits of permissible variation and, hence, the tolerance granted those who have to comply with the requirement. Above all—make that tolerance as large as is compatible with the requirement. If a dimension of a box is permitted to vary $\frac{1}{8}$ in. either way, do not specify a tolerance of "plus or minus $\frac{1}{16}$ in.," just because greater accuracy appeals to you.

Unit system

Another recommendation that may help in setting up a series of standards is: Classify importance—primary or basic standards, secondary standards and so on. Avoid putting too many unrelated specifications into a single standard. If the specifications for the outside dimensions of a package do not include details about the materials of which the package is to be made, this will make it possible to revise the standards for the dimensions and for the materials independently. Also, individual standards may often be used in different combinations. A vacuum cleaner for the home, with various attachments intended for different purposes, is a practical symbol of this principle. Instead of having a number of separate devices, each intended for a specific purpose, or a single, complicated device, suitable for all of the uses, we have here a number of independent, simple standard units that are combined into different devices. This "unit system" has been applied quite successfully in highly standardized mass-production industries where changes in the product are made at regular intervals. Before the present war, the automobile industry made a wide use of machine tools built up of standard units and when a car of a new model was to be made, as much as 85 per cent of such machines could sometimes be used again simply by being assembled with a few new units taking care of the changes in the product. Observance of the "unit system" in designing a set of standards will yield comparable benefits.

Periodic revision

A final recommendation concerning standardization technique is that standards should be periodically reviewed to determine if they need revision. A standard, although set up with due regard to the conditions existing at a given time, may become a liability instead of an asset, if not kept up to date. Here again, a compromise must be found between revising the standard often enough to keep abreast of technical progress in the trade and changes in market conditions, on the one hand, and the usefulness of the standard as a stabilizing influence, on the other. To scrap drawings, patterns, dies and molds and to replace methods of work by new ones cost money but the manufacturer may lose much more by delaying such action. Periodic revision of standards not only prevents them from getting stale, but also facilitates the transition from one standard to another, which usually is a more or less delicate operation. If skillfully handled, such a transition can often be made so smoothly as to cause no disturbance whatsoever in production or distribution. How this can be done by expert use of manufacturing limits and a refined method of quality control (see later in this article) is a matter of importance to the manufacturer and his customers alike.

Molds for glass coffee jars have been standardized in shape and finish to speed production, yet note variety and individuality expressed by labels.



An ASA principle

A problem of vital importance to the success of standards in practical use is the manner in which they are developed. Where a standard is meant to coordinate human performances, it is logical that all parties affected by the standard have an opinion as to what it should be and information that is valuable, if not indispensable, in writing the best possible standard. Also, the attitude of interested parties toward the standard, once it has been set up, will depend largely on the extent to which they have had a hand in its formulation. The more they feel that they are its co-authors, the less they will consider it as an imposition on their individuality. The most effective standard is always written by active cooperation of those who have to adhere to it.

This principle has been adopted as a fundamental policy of the American Standards Assn. (ASA). All groups having a substantial interest in the development of an American Standard "have an inherent right to representation on the body dealing with the subject matter of the standard." This rule applies whether or not the interested group is affiliated with the ASA. Therefore, any trade association is entitled to representation on an ASA technical committee dealing with a subject of concern to the association. Thus, the latter can take part, through the ASA machinery, in the formulation of American Standards and, after peace will have come again, in international standardization work where the ASA serves as the channel through which American industry expresses its attitude. This aspect of the ASA work will become of great importance to the packaging industry on account of the latter's role in the exchange of goods all over the world. The new economy will call for the observance of numerous international standards if the impoverished human race is to make the most of its resources.

The war effort

For the time being, we have to make the best possible use of standardization in the war production effort. The ASA is cooperating as closely as possible with the Federal Government and has approved and published a number of American War Standards developed by an ASA procedure specially designed for speedy action. Only one set of these special standards will be mentioned here as being of basic interest to the packaging industry which involves so many repetitive operations in the manufacture, as well as the handling of units. The reference is to the standards on Quality Control² formulated upon request by the War Department. These standards will help the manufacturers to cut down the percentage of rejections, save cost of inspection, stabilize the level of quality of a manufactured product and, last not least, provide a basis for judging the reliability of a supplier in his relations with the customer. The arsenals are using these methods extensively and application is gaining ground also in private industry.

Organize company standards committees

The war production effort would be immeasurably strengthened if individual companies would organize systematically for setting up their own standards. Too often executives will consider standardization merely as a technical problem, rather than a problem of management. The fact that *coordination* is the essential purpose of standardization implies that company standards should not be set up by having each depart-

² Guide for Quality Control (Z1.1—1941); Control Chart. Method of Analyzing Data (Z1.2—1941) and Control Chart. Method of Controlling Quality During Production (Z1.3—1942).



Three dress shield boxes replaced six used before simplification. Standardized design not only simplifies, but harmonizes the complete line of packages for this product.

ment working out its own, but that the different departments should join their efforts, in formulating and determining company standards.

Therefore, the following suggestion is submitted for the consideration of executives in whose companies standardization has not yet been dealt with as a distinct function of management. Appoint a small company standards committee consisting of the department heads most directly concerned with matters of standardization. The make-up of such a committee will, of course, depend on the nature of the company's business. A manufacturer of packaging machinery may put the matter into the hands of a committee consisting of the chief engineer, production manager, chief inspector, tool engineer, purchasing agent and sales manager. Assisted by a secretary, who also functions as the company's standardization engineer, this committee will formulate the best standards obtainable for the company because its members can pool their information, express the attitudes of their respective departments and, by getting together regularly, learn to appreciate each other's viewpoints and to find a compromise where opinions differ.

Better relations with other groups

By thus putting standardization work on an organized basis—rather than to let it become a source of strife between different departments, as often happens—the company will also be in a better position, wherever standards are concerned, in its relations with other organizations. It will have a group of men able to use to the greatest advantage the information collected by the standards engineer, for example, from the collection of some 600 American Standards and the numerous standards set up by trade associations and technical societies throughout the country.

Also, the standards committee will save the executive management the trouble of settling countless disputes that will arise in the absence of satisfactory standards, such as disputes between departments, between the company and its suppliers and customers, and between the company and public authorities. Thus, it will pay executive management in every respect to make full use of standardization as "the key to coordination." Sufficient knowledge on the subject is now available to do this without impairing the spirit of individualism and initiative that is the driving power of every sound modern business concern.



INSIDE NEWS

APRIL

PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y.

1943

Glycerine in A.R.P. Glass Protection

Lessons Learned from Bombing of London Prove Helpful to American Investigators



RUIN IN OXFORD STREET AFTER "BLITZ" RAID—These hollow-eyed buildings, with scarcely a pane of glass remaining in their gaunt window frames, graphically illustrate the need for reinforcing plate glass against the concussion of high explosive bombs.

Much of the pertinent information concerning the treatment of glass to protect people from flying splinters and jagged fragments during air-raids has been obtained from the bitter experiences of the much-bombed British. Among the several procedures recommended by the Ministry of Home Security, A.R.P. Department, is the employment of thick, tough or reinforced paper applied to the glass with flour paste or acacia mucilage made slightly tacky by the addition of 5 per cent of glycerine. Uncoated transparent wrapping materials (except cellulose acetate film) can also be used. These are applied to the windows by means of a good clear gum to which 15 per cent of glycerine has been added.

Investigations have also been carried out by American investigators. Recently, one of them developed a new and very effective procedure for protection against flying glass. According to his method, old bed-sheets are cut into one-inch strips which are freely daubed, by means of a paint brush, with the following composition:

Wheat flour	4 oz. av.
Powdered alum	4 drams
Sodium benzoate	20 grains
Oil of cloves	30 drops
Glycerine	4 fl. oz.
Water	2 pints

The flour and alum are rubbed to a

smooth paste with the water and the glycerine. The mixture is then heated quickly to the boiling point, removed from the source of heat, and then thoroughly mixed in the remaining two ingredients.

It is advisable to apply the strips to windows in criss-cross fashion, placing them about 1½ inches apart and permitting the ends to overlap the edge of the window frame. (314)

To Locate Fish By Sound

Fishermen in British Columbia waters may soon seek their fish by sound. This method of locating large schools of fish has proved effective in Norwegian waters and is to be tried out in the herring fishing industry of British Columbia. A fish canning company is fitting a 45-ft. boat with an echo sounding device at a cost of \$4,000 to \$5,000.

Originally devised to aid ships in shallow waters, this echo sounder has been improved until it will record a whisper, and it is used in detecting the presence of submarines in wartime. As used by fishermen, the device will locate a large mass, or school, of fish by the sound reflected from the body of fish, and the distance to the catch will be indicated by a meter. (336)

Progress Reported in Guayule Rubber Project

Progress in the expansion of the guayule rubber production program under the several cooperating agencies of the U. S. Department of Agriculture has exceeded early expectations. Recent developments by the Department's Emergency Rubber Project are in accord with the findings of the Baruch committee which recommended "that this program be given every possible support as the principal source of crude rubber which could not be lost to us short of conquest of American territory."

The Forest Service, which is administering the production phases of this emergency program, will start to mill in mid-January the older shrubs previously reserved for seed collection.

This winter the Forest Service factory will manufacture 600 tons—only a fraction of the nation's needs—but the first natural rubber produced in the United States since the beginning of the war. Plantations being established this winter are expected to yield about 21,000 tons from the harvest starting late in 1944. The planting and harvesting schedule is planned to produce about 80,000 tons annually thereafter. Even the maximum production mentioned, however, is small in comparison with the country's normal peacetime consumption of 700,000 tons of rubber a year. (315)

Boost for Canned Milk

When properly prepared, canned and dried milk retain the full nutritional value of the fresh milk, it is revealed by studies in Switzerland. This is especially true of the sweetened products. Even vitamin C, in spite of its sensitivity, is retained by the best modern methods. Furthermore, uniform composition, freedom from pathogenic organisms and fine casein dispersion make canned and dried milk products more digestible than fresh milk. (316)

"Utility" Paint Proposal Renewed in Britain

Since domestic paints have become almost unobtainable in Britain, discussions on the advisability of producing a limited amount of a "utility" paint are again in progress between the Board of Trade and the Paint Federation. A recent statement in the House of Commons revealed that a provisional arrangement has been made for a supply of linseed oil for such paint, and steps are being taken for the release of certain quantities of other necessary raw materials. The British paint trade believes that the "utility" paint, when eventually produced, will be made in three or four shades. (317)

NATIONAL CAN



PLANTS: NEW YORK • BOSTON • BALTIMORE • CHICAGO • HAMILTON, OHIO • FORT WAYNE, INDIANA

An Oasis in the Desert



A 2½-gallon water canteen produced by National Can for our armed forces.

Brine Preservation of Vegetables

Because of the shortage of containers, experiments are being conducted, with indications of success, in the brine preservation of snap beans, peas, lima beans and other vegetables. The process, similar to that employed in brine curing of pickles, has been under study at North Carolina Agricultural Experiment Station for several months. The research is conducted cooperatively by the experiment station and the U. S. Department of Agriculture.

If successful, the brine preservation of vegetables would help to build up food supplies to meet wartime needs of the United Nations and would save those portions of the crop generally lost through seasonal overproduction. (318)

Lactic-Acid Lacquers

Efforts to devise lacquer substitutes for tin containers, through the use of lactic acid obtained from the whey that is a by-product in cheese and casein factories, are making progress. In experimental coating of steel milk cans this lacquer has proved highly successful, also in coating evaporated milk cans. Previously dairy scientists had developed lacquers suitable for coating wood, paper, glass and other substances. Some of these lactic-acid lacquers doubtless will be useful to various branches of the canned food industry. (319)

Approximately one-sixth of all gasoline consumed in the U. S., 5,000,000,000 gallons, goes to farmers. They also use large quantities of lubricating oils and greases, estimated at 138,000,000 gallons and 2,000,000 pounds respectively.

Technical Topics

INSECTICIDES—The effectiveness of attractants and repellents for insects and animals can be increased substantially by the incorporation into the formulas of minute quantities of glandular extracts of animals such as the skunk, the muskrat, etc. Musk odor serves as a particularly powerful lure in insect attractants. (320)

SURGERY—A British publication reports that wire of corrosion-resistant alloy steel is being used by Swedish surgeons in place of silk or catgut. (321)

CAROTENE DETERMINATION in plant tissue by a rapid chromatographic method was described recently in a project completed in the Eastern Regional Research Laboratory of the Department of Agriculture. The method can be used for both fresh and dehydrated materials. (322)

POTASSIUM CARBONATE is now being produced in Germany from a mixture of potassium sulphate, lime and coke. The sulphate and lime are reacted at elevated temperatures in the first step of the process, to produce a concentrated solution of potassium formate containing calcium sulphate in suspension. The liquor is then evaporated to dryness and the residue calcined in a surplus of air. (323)

ROSINATED CALCIUM LAKES are improved in tinctorial properties, mass-tone, and strength by the addition of small amounts of sulphuric acid esters of the higher fatty acids during processing, it is claimed in a recent British patent. (324)

TETRAETHYLTHIURAM MONOSULPHIDE has been found an effective agent for the treatment of scabies in Britain. (325)

LINSEED OIL—Lend-Lease has been shipping large quantities of linseed oil to Russia to be used principally as food. The hydrogenation of such oils to harden them is entirely feasible, and experiments have disclosed that an excellent shortening can be made from oil either wholly or partly linseed. (326)

NEW FOOD SHORTENING—By a recently developed process, tasteless and odorless shortening with a vitamin content is made by hydrogenating fish oils, adding them to vegetable oil and treating further by hydrogenation. (327)

PEELER—Developed for a marmalade manufacturer, a lathe-like peeler has been patented which removes from citrus fruit the outer surface of the peel containing the bitter cells. (328)

MEAT PRESERVATION—To inhibit deterioration in meat products, a method has been developed for subjecting the meat to inert gas under greater than atmospheric pressure. (329)

VEGETABLE DISCOLORATION—Discoloration of the cut surfaces of fruits and vegetables can be prevented by dipping the pieces in dilute thiosulphate solutions. The method has recently been patented. (330)

SYNTHETIC RESIN IDENTIFICATION by means of schematic flame and olfactory tests was described recently. (331)

BISMUTH SUBSALICYLATE has been found effective for combatting blue mold or downy mildew disease in tobacco. (332)

LIVER can be dried and reduced to a fine brown powder by a recently developed process. When so processed, it is said that it can be preserved indefinitely without refrigeration and occupies only about one-fifth the normally required space. (333)

TARTAR EMETIC SPRAY RESIDUES on citrus plant materials may be rapidly determined by a recently developed analytical method based on iodometric titration. The iodometric procedure eliminates the necessity of ashing the leaf materials, as was done in the modified Gutzeit method formerly employed for determining the anti-mony content of the tartar emetic. (334)

CHROME YELLOW, with a solubility of only 1.75 percent, for use as a pigment in paints, inks and other materials is now being offered by an American company. The new pigment is especially intended for use in camouflage coatings, since the low solubility reduces the possibility of lead being assimilated to a dangerous degree during the spray-painting of war materials. (335)

Every effort will be made to furnish additional information on these articles. Where such information is not obtainable, we will refer inquiries to the original source of the article. Write to National Can Corp., 110 E. 42nd Street, New York City. Please mention the number at end of article—also name of the magazine you saw it in.

(Advertisement)

Pre-packs for rugs

How to display and handle floor coverings has always been a headache in home furnishing departments. The merchandise itself is big and bulky—takes up a lot of valuable selling space. How then is the best way to display such merchandise, sell from samples and deliver the customer pre-packed units?

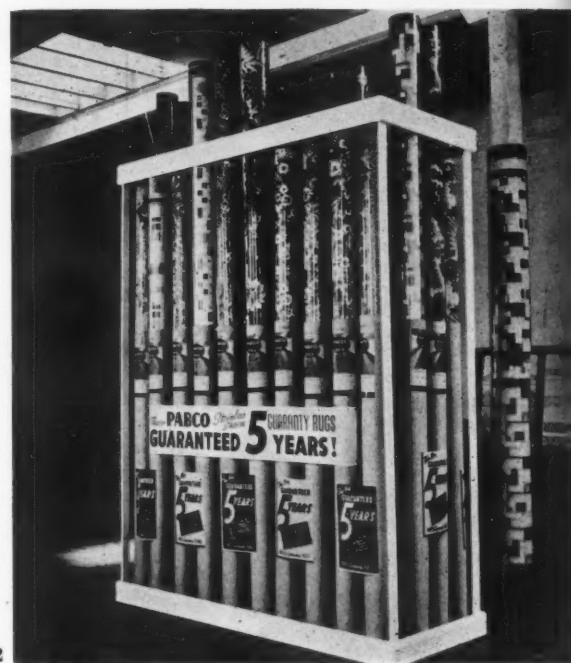
Floor covering manufacturers who have recognized these dealer problems and planned their merchandising programs accordingly have been quick to feel the results through increased sales volume.

An excellent example of an organization which has planned carefully its display program and packaging methods for the dealer's convenience is The Paraffine Companies, Inc., makers of linoleum and felt-base rugs. This company began its packaging development and display program back in the twenties at its Emeryville, Calif., plant for its special line of "Pabco" rugs.

New production methods resulted in a long-wearing product. New designs which the company initiated at that time made the rugs suitable for other than kitchen floors and made possible a merchandising program which promoted these felt-base rugs for living rooms, dining rooms, guest rooms and studios. This wider acceptance for the products made necessary intensive study of display and pre-packing methods, which have proved a great advantage in the current market for such products.

The stimulus to home building in war production centers and depleted stocks of wool and other textured rugs have created unprecedented demands for felt-base rugs. In pre-war days practically all such rugs were sold in department stores, furniture stores and similar home furnishings outlets. Now an odd assemblage of retailers handle this product—paint stores, variety stores, hardware stores—even grocery and drug stores in some instances. With such a variety of outlets, the need for convenient pre-packed merchandise is even more apparent.

The 9 by 12 felt-base rug, package and all, weighs 45 lbs.—a good size package to sell over the counter! But it is being done very effectively with the aid of a "profit spot" 2



1. Fibre tubes holding rugs are stacked on ends, occupying a minimum of warehouse space. 2. Package display of rugs with upper portion of each tube cut away to reveal pattern. 3. Here the 200-ft. lengths of felt-bases are inspected and cut into 9 by 12 ft. sizes before packaging.

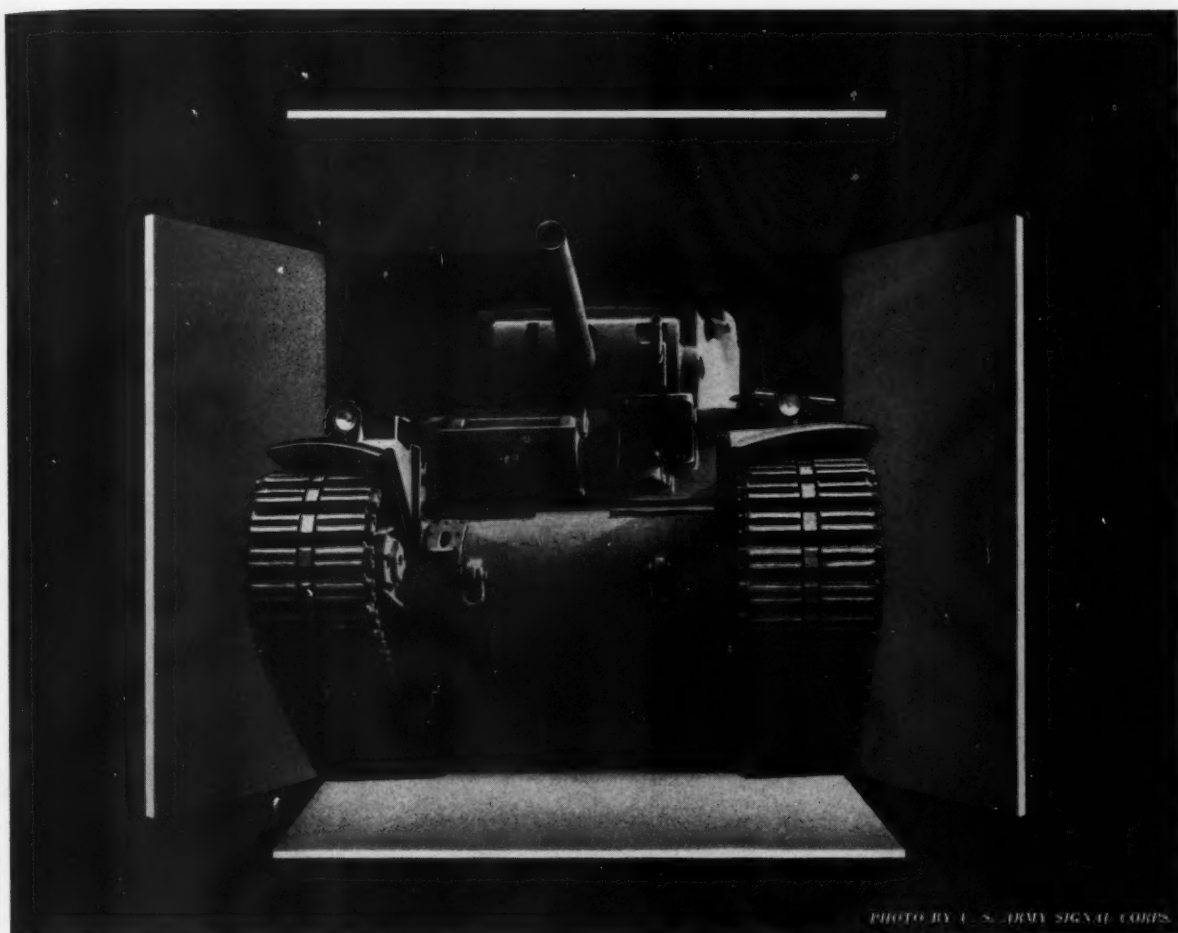


PHOTO BY U. S. ARMY SIGNAL CORPS.

Warnercraft provides wartime product-protection

TRUE to Yankee tradition, the native inventiveness of Warner craftsmen has resulted in new and timely ideas for wartime packaging.

They have "by-passed" material shortages by evolving paperboard containers that are moisture-proof, grease-proof and sift-proof. They have reduced bulkiness to conserve

vital cargo space. They have provided added protection for perishables against climatic hazards, such as extreme heat or cold and dampness.

Submit your problem to the Warner packaging "clinic." Whether you are making cosmetics or cartridges, these container experts can help you cut distribution costs.



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WARNERCRAFT

Makers of set-up and folding boxes of all types, transparent acetate containers, hand made specialties, counter displays and dispensers.

THE WARNER BROTHERS COMPANY

Main Office and Factory: 325 Lafayette Street, Bridgeport, Conn.
New York Sales Office: 200 Madison Avenue, New York, N. Y.

display medium, also developed by "Pabco" to fit in with the present package merchandising program. This plan was adopted when The Paraffine Companies, Inc., originated a five-year guarantee for its rugs. Because of this guarantee any dealer can sell the product blind in a sealed package just as he would toothpaste or any other widely accepted packaged product without encountering consumer resistance. Paraffine gained acceptance for the guarantee by plugging it in dealer and consumer advertising on a national basis.

To dealers ill equipped to devote much floor space and sales effort to bulky rugs, the company proposed the creation of a "profit spot" display, consisting of an attractive grouping of rug patterns occupying only a few feet of floor space. Some interesting display units of this kind have been created for various types of stores, some more elaborate than others depending on the number of patterns shown and resourcefulness of the dealer's display man. In one store crowded for display the range of felt-base rug patterns were shown on wall

space; in another, on a circular floor pillar and appropriately dramatized as a "pillar of profit." The "double purpose" profit spot, another display variation used in some retail outlets, consists of a showing of rolls with other patterns unrolled on the floor. In addition to the colorful guarantee label, a litho reproduction is placed at eye level on each rug to show actual color reproduction of the pattern.

Still another individual "profit spot" display of the line shows the entire range of rugs as packaged. However, the upper half of the tubular shaped package is cut away to reveal the felt-base rug itself. The package created by the company lends itself well to such display. The 9-ft. tube is fastened with an adhesive band in the exact center. Actually each package consists of two 4½-ft. lengths of tubing held together by the adhesive band. This construction has been developed for ease in filing and for the customer's convenience in removing the rug.

As originally developed by the company, the spiral-wound fibre rug tube is of light weight construction, only ¼ in. thick, yet sturdy enough to eliminate damage to the rug in shipment, in storage and in truck delivery to the customer's home. So effective has the package proved in protecting the hard surface rug from "nicks" and damage to the edges, as well as saving of space and shipping weight, that a similar type of covering, made of strong kraft paper has since been devised for heavier linoleum rolls with substantially the same results as the fibre tube.

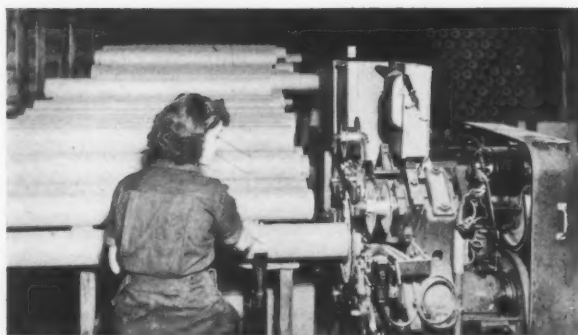
The design of the tube type of package for felt-base had to provide fullest possible protection to the rug. At the same time it had to be of such construction that filling, closing and labeling operations could be reduced to a minimum. For that



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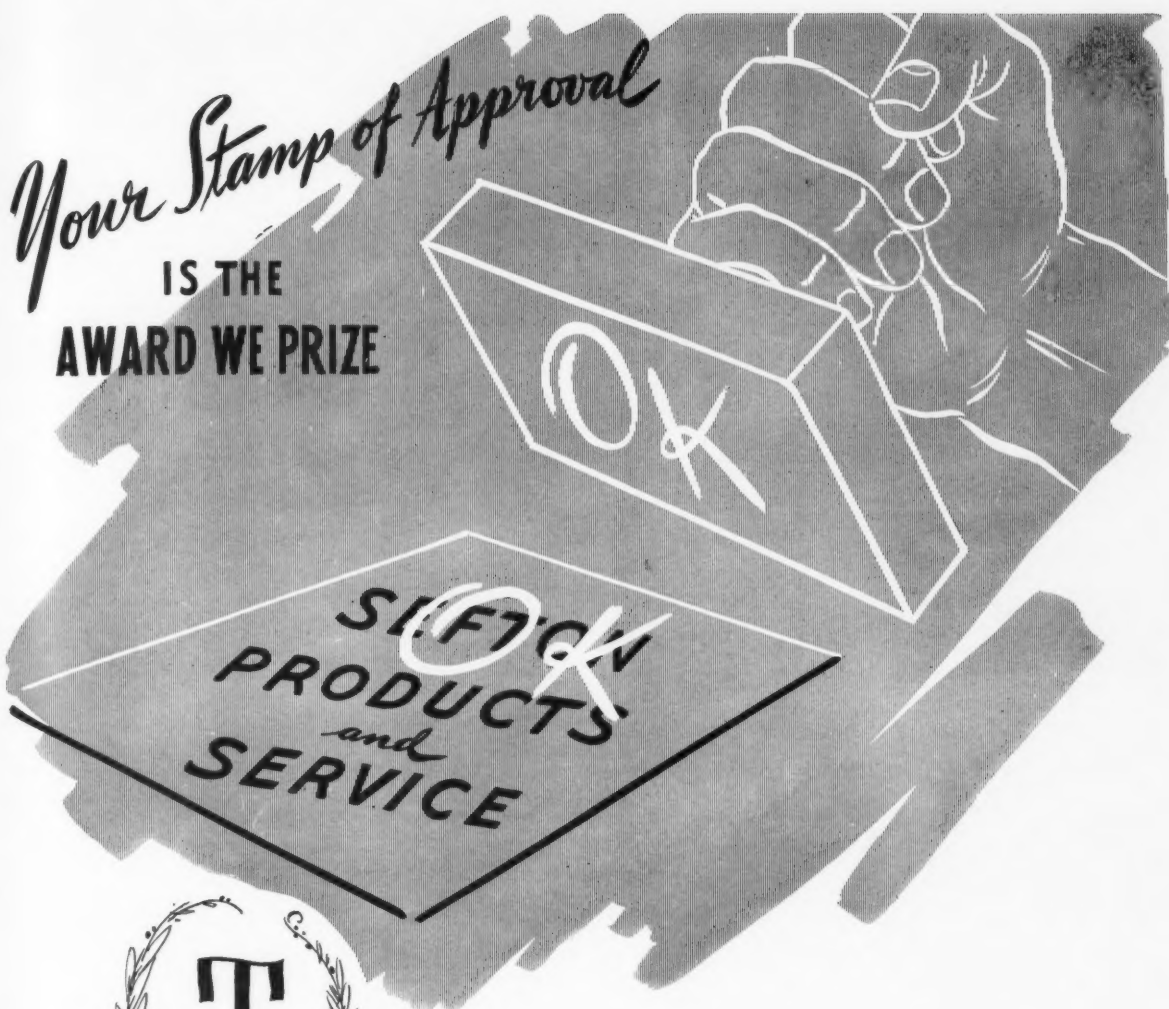
4. Rugs are rolled before placing them in the fibre tubes. 5. View of tube making department. In the background is shown the machinery for spiral-winding the fibre tubes from rolls of strong kraft paper. In the foreground is shown the method of capping the tubes. In this operation the end discs and rings are placed in the tube by means of an air jack. 6. When the end discs and rings have been placed in the tube, the next operation is to staple them. Four staples placed at a time secure the inch-wide collar or ring which keeps the disc from falling out. 7. Rolled rug drops to a rest for packaging. An operator at each end slides a 4½-ft. length of tube on the roll. The two lengths of tubing are then sealed where they join. Note end disc with stapled collar, previously described, to hold rug in place.



7

Your Stamp of Approval

IS THE
AWARD WE PRIZE



THE STAMP OF APPROVAL that you put on our products, our services, is the highest award we could hope for! Your confidence in us, the Sefton Fibre Can Co., is the thing that we prize most, and trust that we will keep it always! That confidence is derived from years of planning by our designers, from sincere, careful attention we have attempted to give, you, our customers, in the past. In war-time, and in peace-time, there is no award that we'd rather receive than your stamp of approval!

SEFTON FIBRE CAN COMPANY

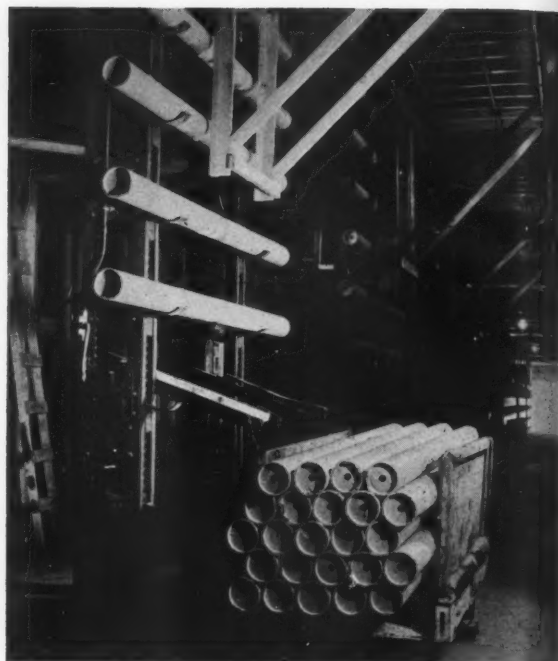
Plants — St. Louis, Missouri • New Orleans, Louisiana

DISTRICT OFFICES:

Los Angeles	San Francisco	Denver	Tampa	Chicago	Des Moines
New Orleans	Boston	Detroit	Kansas City	St. Paul	Omaha
Oklahoma City	Pittsburgh	Memphis	Nashville	Dallas	Houston
				New York	Cincinnati
				Salt Lake City	Cleveland
					Seattle



8



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8. When two lengths of tubing have been joined, an operator applies a strip of adhesive tape to hold them together, making one strong package. 9. Packages then fall through an opening in floor to conveyor which carries them to trucks for distribution in warehouse in another part of building.

reason the company standardized on the use of two half tubes, each with its end disc stapled on. Only one place, where the two ends meet was left to be fastened by one strip of adhesive paper. Ease of opening the package was also considered and a 60-lb. kraft paper was found very practical for this purpose. The strip of paper holds the two ends stoutly, yet can be severed easily to remove the rug.

Handling of the tube package was facilitated by addition of a special type of conveyor for carrying filled tubes direct to storage space in another part of the building.

An elaborate manufacturing process precedes the actual packaging operation, beginning with the pattern design, the cutting of pattern blocks, the actual printing of the felt-base on a color press, drying, inspecting, and then cutting of the 200-ft. sheets into rug sizes. These operations are accomplished in steady, continuous operations culminating in the packaging room, where each rug is rolled, placed in tube, sealed, labeled and automatically conveyed to warehouse space for storage.

The same amount of effort and initiative has gone into the creation of a high standard package, even to the creation of special machinery for making the fibre tubes. This and the other package construction operations are centered on one floor. As already pointed out, the tubes are spiral-wound for added strength and durability.

The next operation, after spiral-winding the tube, is the stapling of the ends. This is accomplished very simply by first inserting the discs into the machine, then an inch-wide collar of fibreboard which fits into the tube circumference. The collar is then stapled to the tube to keep the end disc from falling out. Staples are inserted from the outside of the tube and pressed inward.

Dealers handling the packaged rugs regard mainly the space-saving advantage which these afford as a relatively large

stock can be kept in smallest possible space. Secondly, it speeds up and simplifies selling service. When the customer has selected her favorite felt-base pattern from the compact sample display, it is then a routine procedure to deliver the packaged product from stock. As a guarantee to the consumer that she is getting exactly the kind of rug and pattern selected from sample display, each package bears the pattern number and is marked with the date of packaging for inspection records.

Profiting from its experience in developing the spiral-wound fibre tube for felt-base rugs, The Paraffine Companies have been able to effect a similar improvement in packing many other types of floor covering, linoleum and heavier rolls of felt-base material. Most recent innovation is a strong kraft-wrapped package, also tubular shaped, but capable of holding rolls of linoleum weighing 300 to 400 lbs., yet it is constructed of lightweight material. It gives the roll of linoleum the same amount of protection in shipping and storing formerly provided by heavy wooden crates, but because of its greater compactness results in a 20 per cent saving in storage space, the company claims. They have found these new packs to be very efficient.

This package is constructed with sturdy disc caps at top and bottom to prevent damage to the ends of the fibre-wrapped rolls in transit or in storage. Furthermore, it is an easy-to-open package, provided with 6-in. cloth "header" bands at top and bottom of the roll, which are stripped to expose the burlap caps at ends. These protective caps are stripped off to reveal the discs, after which it is an easy operation to unwind the fibre wrapper and release the full roll of linoleum for display and cutting.

Credit: Tubes and packaging machinery developed in cooperation with Fibreboard Products, Inc.

• Servicing Converters and Users with folding boxboards, coatings, laminating, protective finishing.



IN AN ALL-AMERICAN PACKAGING CONTEST...CONSISTENCY MEANS JUST THIS...

The product must be sold to many good users—then become the choice in still more fine, new packages and finally continue to give satisfaction. Ridgelo clay coated boxboard is proud of its selection for prize winning cartons again this year. It is even prouder of its part in taking the place of critical metals in war-time packaging.



THE CARTER'S INK

Family of Fountain Pen Inks is cartoned in Ridgelo clay coated boxboard.



THE BAYER ASPIRIN

Victory Package is dispensed in a display container of Ridgelo clay coated boxboard.



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Fishing kit for lifeboats

Through the science of packaging, the lives of men cast adrift from torpedoed ships and planes forced down at sea may be saved from starvation and thirst.

An emergency fishing kit developed by the Life Saving Board of the Navy and Coast Guard as standard equipment for lifeboats and rafts carried on all vessels over 3,000 tons will make it easier for survivors to "live off the sea."

This fishing kit is an airtight can that will float even when packed with complete fishing gear. It represents a year's study conducted by the Navy and Coast Guard to safeguard the lives of men cast away on the seas. A smaller version of the kit has been designed for aviators forced down at sea.

The kit contains fishing lines, bait, sinkers and full directions for sustenance from the sea. Wrapped in a heavy canvas "bib-apron" which can be worn by the senior officer or the master fisherman on a lifeboat, the equipment includes tackle designed, tested and approved by experienced fishermen for the serious kind of deep-sea angling that must be done by survivors of sinkings.

The apron, containing a dozen dehydrated pork rinds for bait, a sharp knife with a wood handle that will keep it afloat if it should fall into the water, hooks and fishing rigs of varied sizes and types, is packed into a waterproof key-opening can. A pair of cotton work gloves to protect the hands of the fisherman, a 12-in. dip net, a whetstone fastened into a wood handle to make it buoyant and instructions

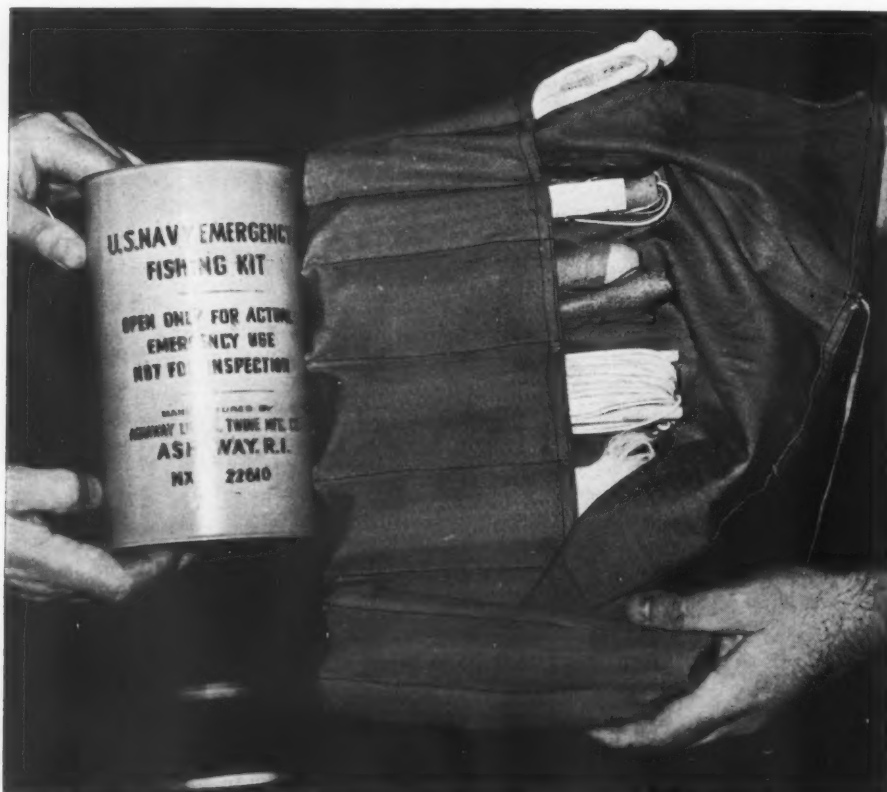
printed on waterproof paper also are tucked into the apron's dozen pockets. The kit occupies no more space than a 2-qt. metal can.

First deliveries of the fishing kits were received by the Navy February 20 of this year. Assisting the Life Saving Board in the development of the kit were the ichthyologist, Ex-Gov. Gifford Pinchot of Pennsylvania, a group of sportsmen including Michael Lerner and Julian T. Crandall, secretary and treasurer of the Ashaway Line & Twine Mfg. Co., which is now producing the kits for the government.

One of the problems encountered in developing a kit for emergency uses was a container which would be compact, light weight, would remain afloat and would still be strong enough to resist any wartime mistreatment. The suppliers were asked to devise a container that would meet these requirements and produced a can so compact that it weighs but 11 ozs. and is only 5 1/8 in. in diameter and 8 3/4 in. tall.

The instructions given to the fishermen are extremely extensive. They tell what kinds of fish are edible, which are poisonous. They tell the lifeboat fishermen how to use the equipment and protect it from loss by being carried away by big fish. They tell the survivors to fish for small fish to minimize this casualty to their equipment. They tell how to quench thirst by extracting fish juices. They even tell how to find food if the men land on uninhabited islands.

Credit: American Can Co. and Crown Can Co.



Inside the airtight can is a canvas apron for the lifeboat fisherman. In the pockets are hooks, line, cotton gloves, dehydrated bait, sharp knife with wood handle that floats, and other fishing equipment. Kit occupies no more space than a 2-qt. can.

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EYE SHIELD FOR FIGHTING MEN

Typical application requiring a high degree of transparency and light stability is this eye shield designed for use by our soldiers on nearly every fighting front. This product, though simple in form, takes full advantage of Ethocel Sheeting's qualities of endurance under extreme temperatures as well as its exceptional light stability. Eye shields retain original Ethocel Sheeting properties—providing effective protection and high visibility over extended periods.

ETHOCEL SHEETING

*Fadeometer Resistance Exceeds
600 Hours!*

Nearly every application employing thermoplastic sheetings requires stability to light. Here Ethocel Sheeting stands high—in actual use—or laboratory test. For in products ranging from transparent packages to protective envelopes and eye shields, Ethocel Sheeting has demonstrated its ability to withstand exposure to light.

Most difficult of all tests is found in the laboratory. Under the careful supervision of trained technicians, Ethocel Sheeting is subjected to long exposure in the Fadeometer. After 600 hours in the glaring light it showed no indications of embrittlement or discoloration! This characteristic, combined with low temperature flexibility and dimensional stability at high temperatures, recommends Ethocel Sheeting for the most difficult applications.

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ETHOCEL

DOW PLASTICS

STYRON • SARAN



CHEMICALS INDISPENSABLE
TO INDUSTRY AND VICTORY

Crating airplanes

To pack a plane so that it will be ready for flying in the shortest possible time after its arrival on the war fronts and in training centers is one of today's paramount shipping problems of aircraft manufacturers.

Fairchild Engine and Airplane Corp. reports that, due to its methods of packing, its planes have been flying several days ahead of others which arrived in export cases at approximately the same time.

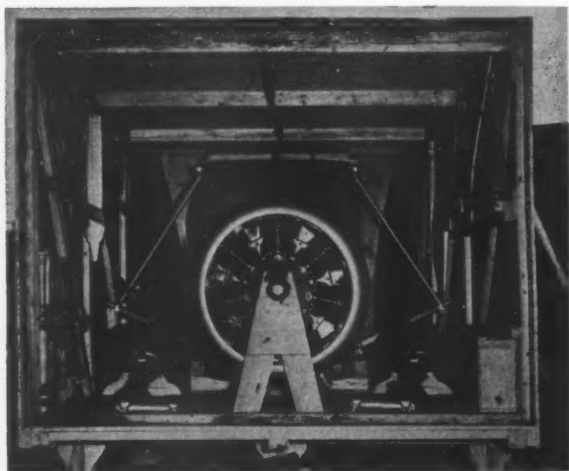
Two models of Fairchild airplanes are currently being exported. These are the PT-19A, low-wing primary and secondary trainer, and the C-61, which is a four-place, high-wing personnel and light cargo aircraft. In order that all parts of the aircraft might arrive at the destination together,

a single case was designed to accommodate the entire airplane, including wing panels. In this way, the complete aircraft arrives at one time, instead of in separate pieces as is the case when wing panels, including the center wing section, are shipped in a special box.

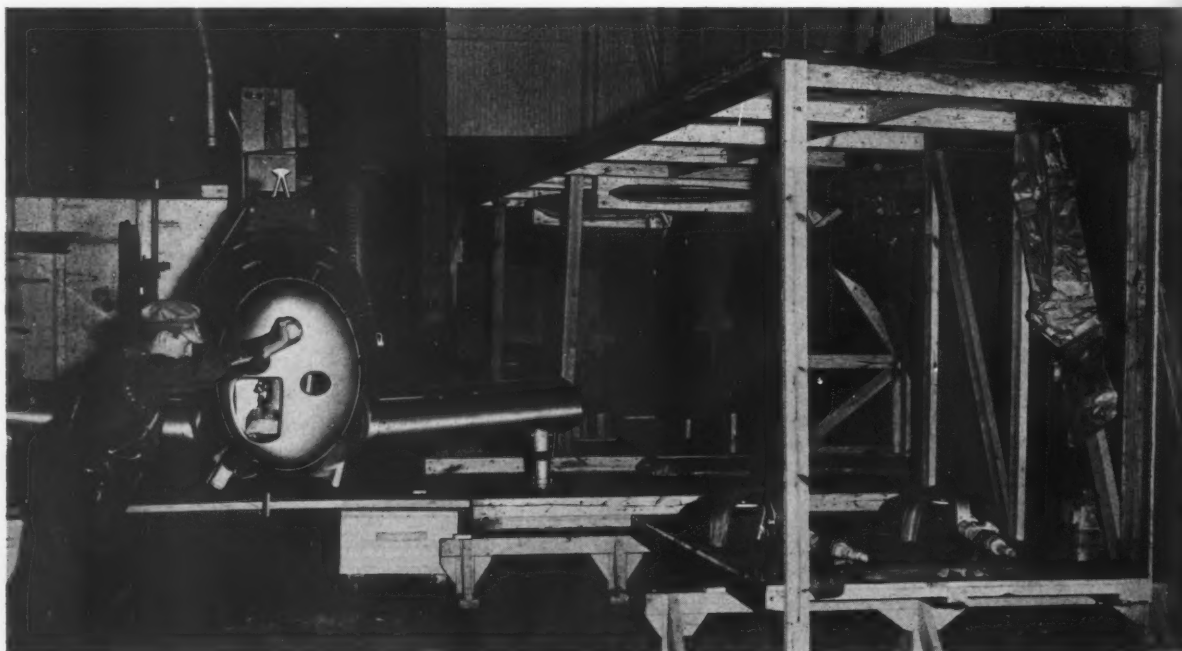
The problem of moving large shipping boxes, both by freight and by rail, is one which must be given careful consideration. Fairchild found, in the case of the PT-19A crate, that the single unit could accommodate the entire airplane and still have enough clearance for traveling on all Eastern railroads. This allowed the manufacturer just enough leeway in width to leave the center wing section assembled to the fuselage and thus minimize the assembling procedure.

Fairchild has designed its export boxes so that standard attaching parts such as wing and landing gear bolts can be used with the help of inexpensive bushings to fasten the various major parts to the case itself. The standard cases are built of easily obtained lumber and other standard materials, such as angle irons, padding, tar paper, etc. In addition, cases for both the PT-19A and C-61 take advantage of the fuselage contour, which permits the securing of wing panels lengthwise alongside the fuselage.

Complete instructions on how to open the case and to assemble each airplane are attached to the outside of the case so that the consignee may set up equipment and give instruction to mechanics for the assembly prior to opening the case. An additional set of instructions is on the inside of the case. By removing both ends and (Continued on page 210)



Crate for Fairchild C-61 at left and case for PT-19A below. Note center wing section left assembled to the fuselage and wing panels secured lengthwise inside the wooden box.



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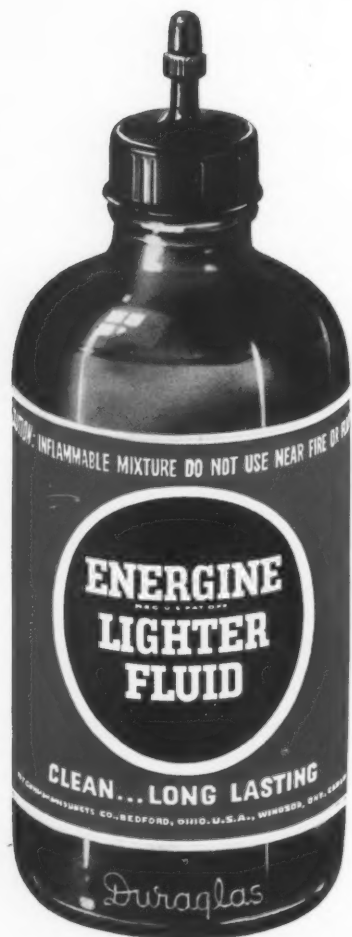
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Gremlins just love to get into machines that have been improperly lubricated. And do they go to town when they find a machine that's being run by an insufficiently instructed operator! We've made all of our wrapping machines as gremlin-proof as possible. We've even guarded against a certain amount of carelessness. But in these days, when machines just can't be replaced, one has to take extra care.

See that operators know the machine thoroughly. Especially important now, when old hands must often be replaced.

Clean regularly. A clean machine works better, and the operator takes pride in it — gives it better care.

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MACHINERY

PRODUCTION

TESTING

Technical Editor: CHARLES A. SOUTHWICK, JR.



Package at left is former foil-wrapped yeast. Others show front and back of the paper-wrapped package. Adjustments to machinery had to be made with almost watchmaker precision to transfer machine's acceptance of former ductile foil to the new paper wrapper

How Fleischmann changed from foil to paper

Fleischmann's yeast cakes on the retail market in a paper wrap, according to reports, are doing all that the former tin and aluminum foil wraps did, both for the consumer and the producer. A peculiar problem of adjustment of machinery and the wrapping materials was necessary to effect this conversion, due to the fact that the wrapping machinery at the Fleischmann plant, Peekskill, N. Y., was particularly designed to wrap the yeast cakes in foil.

Tin foil was used for quite some time and later aluminum foil was adopted, but the government's call for foils put both of these into the discard as far as Fleischmann's yeast was concerned. Several varieties of paper were tried before one was finally accepted. In fact, Standard Brands had been experimenting with the idea of such a conversion long before the foil situation became critical. The difficulty had been that the machines, adjusted to the ductility of foil, were not geared to the peculiar "springiness" or "memory" characteristic of the paper which tended to return to its original shape. It was found necessary either to induce greater ductility into the paper without loss of its protective value or to provide some means of applying the wrap so it would stay put.

The small size of a yeast cake and the resulting shortness of the fold added to the problem. Specially treated paper was finally accepted after some processing. Glycerin was first used as a plasticizer, but after that had been placed on high priority lists, invert sugar was used, also successfully. Again government requirements threatened to deprive Fleischmann of this supply and titanium was found to be both available and to have much the same effect when used as a filler in the paper. Titanium was on priorities but the need was found to be so great that additional facilities were constructed to produce this chemical and the supply now available is adequate for both government needs and civilian

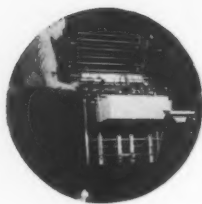
requirements. Use of titanium gives opaqueness to the normally translucent paper and provides an ideal printing surface, so that the Fleischmann yeast wrappers now appear imprinted with promotional material and information as to the nutritive qualities of the ingredients. The familiar yellow Fleischmann label continues in use as an additional identifying trademark.

Coating of the paper with a resin and wax compound especially evolved for the purpose was done for two reasons. The compound is ideal for heat sealing and when applied at a high temperature helps to sterilize the inside of the paper. It keeps the yeast from direct contact with the paper and acts as a further protection against air and micro-organisms which would thrive in yeast. Because of the oily coating customarily found on foil, Fleischmann had been using an acid adhesive for its label. This is being continued in use on the new coated and impregnated wrapper successfully.

Originally the yeast wrapping machines handling foils only did not require a heat sealing unit, of course. With the adoption of the new paper, this was found necessary and units were devised and applied by company mechanics.

The new wrap has been accepted without any question or comment by both retailers and consumers. Performance tests show it to be as satisfactory as the foil was. Tests to which the new wrapper were subjected included, of course, time and temperature tests to determine keeping qualities of the new-wrap yeast as well as microscopic tests.

The smallness of the yeast cake demanded almost watchmaker precision in effecting the adjustments necessary to transfer from the machine's acceptance of former ductile foil to the new wrapper. This was done so accurately that production continues at the former rate of 120 cakes of yeast per minute through the machines.



What prospects for printing ink materials?

by William F. Talbot*

Over a year ago when potential shortages of printing ink materials loomed, many questions arose concerning the connection between the raw materials of printing inks and the raw materials of war. Some individuals questioned whether such connections actually existed and whether or not the potential shortages were real or arose from some obscure motives. These questions have long since been cleared up. Most Americans have gone through a revolutionary change in their thinking concerning technological economics and are now possessed of a surprising amount of information about the relationship between a wide variety of raw materials and the needs for these materials or their parent substances or the plants which produce them, for military purposes.

Almost everyone, for instance, is now aware of the significance of nitric acid in the manufacture of explosives and the fact that supplies of fixed nitrogen are limited by capacity to produce ammonia. They are aware also that many organic compounds and practically all of our bright organic colors are dependent upon this same basic commodity. Every housewife has been educated in the basic outlines of glycerin chemistry and the importance of glycerin as a raw material for explosives through the campaign to save fats.

Obviously, however, not everyone who has been exposed to these fundamental principles has the time, the opportunity or the chemical background to pursue a vast number of raw materials through the exceedingly complex ramifications of modern industry. As a result, conservation orders have been issued by WPB and business men have been pursued by the haunting fear that the basic commodities upon which their individual industries rest may be either completely withdrawn for the war effort or so seriously curtailed that individual businesses will be driven out of existence. Everyone has seen too many boarded up gasoline stations to assume categorically that this cannot happen in any particular industry.

Survey of conservation order

A survey of the recent conservation order directed toward the raw materials of printing inks, coupled with a consideration of the supply situation in these cases and the manner in which these raw materials enter the military effort, leaves one with the firm conclusion that no such fate awaits the graphic arts at least for some time to come.

Under today's conditions it is impossible to predict the distant future. One can be assured that supply conditions will change sometimes rapidly and sometimes slowly, sometimes favorably and sometimes unfavorably with the ebb and flow of world conflict. This situation is illustrated dramatically by the supply condition of chromium compounds so important to the printer in the form of chrome yellow.

When an article was written concerning printing ink supplies about a year ago the supply of chromium compounds was in a critical position and the future prospects were gloomy. Within a matter of weeks after publication of the article the situation had materially improved and today the supplies of

chromium ore are reported to be larger than ever before. Cause for this sudden change was simple and now in the light of past events may even have been predicted although not with surety. Since ships loaded with men and supplies were being sent to those areas of the globe where chromium ores were plentiful, it was a simple matter to load them with chrome ore for their return voyages.

Other materials which seemed quite plentiful a year ago are now facing at least minor restrictions in use. However, it becomes only natural to assume that in all these cases changes must occur, substitutes will be found and business will progress. We have now learned to live with and to expect shortages coupled with limiting conservation orders. Through them we have gained a new spirit of optimism and confidence that a vast majority of the problems will be solved by the ingenuity of American business aided by American technical men.

Supply good for immediate future

We start then with the major premise that for the immediate future at least there will be an adequate supply of printing ink materials to meet all printing needs. It may be added with considerable confidence that these needs will be met without drastic changes in printing techniques or the appearance of the printed page.

Primarily, consideration must be given to the declining demand caused by the conversion of a number of industries to all-out war production. Autos, refrigerators, radios and aluminumware, to name a few, are out for the duration and with them, substantial quantities of paper and ink. Although increased government requirements have in a measure made up part of this loss, the ink industry has been able to keep pace with the present demand.

The printing ink industry has already operated for roughly nine months under conservation order M-53. When this order was issued it had all the appearance of a deep cut into the raw materials of printing inks. It was viewed with considerable alarm by both the producer and the user of printing inks. However, as time passed and users became accustomed to operating under this order it became more and more apparent that it permitted reasonable operations. So far this order apparently has not caused any printer serious hardship or compelled him to forego any of his usual business. Neither is there any evidence that those who have had to plan printing in any form have had any real reasons for making marked changes in their plans. In other words, the graphic arts have lived under M-53 for a period of months without serious handicap to the printer.

To understand the present supply situation it is necessary therefore to compare the old and new orders. Roughly the original M-53 order forbade the use of soluble toners in printing inks, forbade the use of toners of all types in news inks, restricted the use of alkali blue as toner in other black printing inks to 4 per cent by weight for the dry material and 8 per cent for the paste and forbade (Continued on page 212)

* Director of Research, General Printing Ink Corp.

Dr. Talbot's Guide to Availability of Ink Ingredients

PIGMENTS

Metallic Pigments—Broadly speaking metallic pigments have practically disappeared from the market and the printing industry has learned to get along without them. There is no hope for relief in this particular case.

Titanium Whites—There has been a general improvement in the situation in respect to titanium whites due to the opening up of American sources of ore and to the fact that a great many items, such as refrigerators, which consumed large quantities of titanium white are no longer being manufactured.

Zinc Whites—French process whites continue to be essentially non-available but the supply of American process seems to be reasonably good.

Other Whites—Materials such as leaded zincs, carbonated magnesia and various clay whites all seem to be plentiful.

Lithopone—Lithopone is in a much better position than it was six months ago. There is reason to believe that there will be sufficient to take care of the requirements of the ink industry.

Chrome Yellows—Chrome yellows are now readily available and their use is not restricted. Moreover, the government restrictions on the use of ore by the producers has been almost entirely removed and there should be adequate supplies of chrome yellow available for some time to come.

Organic Yellows—The organic yellows which are most important to the printing ink manufacturer such as benzidine and Hansa yellows now appear to be available up to the full amount permitted by M-103. While the situation in respect to the supply of the intermediates from which these colors are made is not entirely clear, there seems to be no reason to anticipate a shortage in the near future.

Lithol Reds—As reported in the accompanying article lithol reds are not restricted.

Para Reds and Toners—While these materials are restricted there seems to be a sufficient supply within the restricted quantity.

Other Organic Reds—All other organic red pigments seem to be available in the limitations.

Cadmium Red and Vermillion—These materials have been scarce for a long time and probably will continue so.

Alkali Blue—Alkali blues can be considered fairly available although, of course, their use is restricted under M-53 as amended.

Peacock Blues—Peacock blues are not readily available. In this case there is a direct tie-up with an important military use and at the moment there is little hope for relief. However, in most cases it has been possible to obtain sufficient for the immediate needs.

Iron Blue—Iron blues for various types seem to be readily available and are not restricted.

All Other Blues—All other blues are reasonably available and there should be a sufficient supply for ordinary uses.

Carbon Black—While the furnace-type blacks are no longer available for printing ink use their consumption has never been great and this does not work any particular hardship. Channel blacks which have always constituted a most important printing ink pigment are available in large quantities. Since at the moment there is no need for this type of black in rubber and since synthetic rubber requires only furnace black there should be no great

demand on the capacity for production of channel blacks. There seems to be no reason for fear of immediate shortage of these pigments.

Aluminum Hydrate—The present indications do not seem to point much to any shortage of aluminum hydrate for 1943 although there have been some changes in quality which should not seriously affect printing uses.

OTHER INGREDIENTS

Drying Oils—The linseed oil situation presents a paradoxical picture. The crops of flax both in the United States and the Argentine were exceptionally large and up until a very short time ago there seemed to be no reason to doubt the availability of large quantities of this material. However, transportation difficulties have interfered with importations from the Argentine. Farm labor conditions have been such that some people expected a possible flax seed shortage and heavy shipments of beef, dairy products and vegetable oils under lend-lease has raised the question of using linseed oil as a source of edible fats. However, the present restrictive orders do not place any great burden on the printing ink industry and it is believed that printing needs will be given careful consideration in the allocation of drying oils.

Synthetic Resins—Synthetic resins present a complicated and wholly unpredictable picture. The needs for the resins themselves and for their raw materials in a multitude of military uses are complex and bewildering. However, the present attitude in respect to allocation seems to be a reasonable one and it is anticipated that enough synthetic resins will be available to take care of those critical uses where they cannot be substituted without serious disturbance of the printing industry. Although the use of synthetic resins has permitted the development of superior inks, it is probable that in cases where such superiority is not essential they will be withdrawn. The search for substitute materials is constant and has met with success. It is not believed that the shortages in these resins will seriously affect the printer or the quality of the printed article.

Ester Gum—The supply situation in respect to ester gum is not a happy one due to the shortage of glycerin, an essential in its manufacture.

Rosin—At the moment supplies of rosin and of lime and zincated rosins seem to be sufficient for the needs.

Other Natural Gums—With the exception of the Congo gums most natural resins are strictly limited in supply. Hence little will be available for printing ink uses. The most serious item to suffer in this respect is rotogravure ink which has always used substantial quantities of Batu gum. Substitutes are meeting with considerable success.

Driers—While naphthenic acids continue to be limited in supply the situation in respect to cobalt has improved and there is no reason to fear a serious shortage of driers.

Mineral Oil—Mineral oils of various grades play an important part in some printing inks particularly news inks and heat-dry inks. In spite of the difficulties with the petroleum supply it must be borne in mind that these uses come to a minute fraction of the total petroleum consumption. Unless the transportation situation becomes materially worse there will be a sufficient supply of these materials for all normal printing uses.

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CONSOLIDATED PACKAGING MACHINERY CORP.

1400 WEST AVENUE

BUFFALO, NEW YORK

KOTTONER } Automatic Cotton Inserter

Award: **PACKAGE MACHINERY GROUP**
12th Annual ALL-AMERICA Package Competition
To: **ABBOTT LABORATORIES**

The Universal Kottoner is an outstanding Consolidated machine development. It eliminates a costly production bottleneck and contributes a number of important advantages, not the least of which is the absolute protection of the wadding from contamination. It saves time, material and manpower in the performance of this essential packaging operation: the inserting of cotton or similar wadding materials into bottles of tablets or pills.

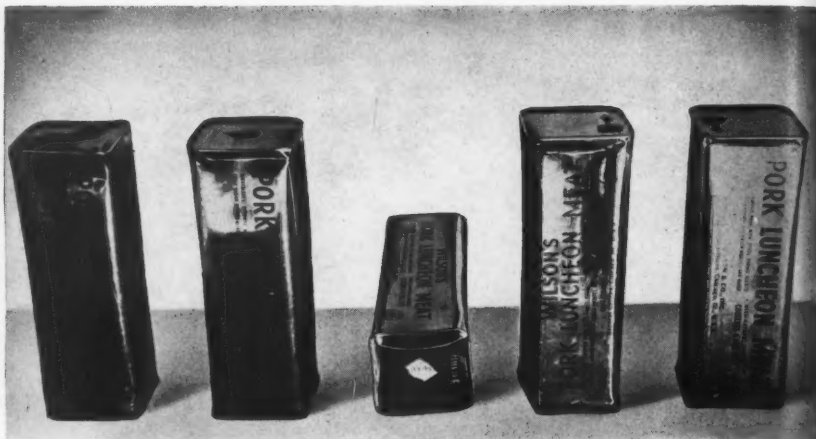
Very simply, it takes cotton rope, inserts the proper amount in each bottle, cuts it cleanly, leaving a full thick end for the consumer to grasp when removing the contents. It performs these operations **automatically**; it performs them **economically** and in a **completely sterile manner**. This last feature is very important in the handling of drugs, including Sulfanilamide tablets for Abbott, which won the award of the All-America judges.

The machine is adjustable to fit a wide range of bottle sizes and types and various thicknesses of cotton rope. Priority support is being extended essential users, because of a definite saving in manpower and materials.

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The Universal Kottoner is a vital contribution at a critical time, and we offer it to all who need the utmost in product protection, efficiency and packaging economy.





1. Wirebound box tested for packing eighteen 2½-lb. cans of chopped ham. Interior packing consisted of B flute 200-lb. test corrugated individual overpack, unsealed sleeves and pads. B flute partitions and carton (overpack) were also used for some boxes. 2. Types of damage to cans. From left to right: bad dent top, bad dent top, bad buckled top end, bad dent bottom and bad dent bottom.

Performance of nailed and wirebound wooden cases

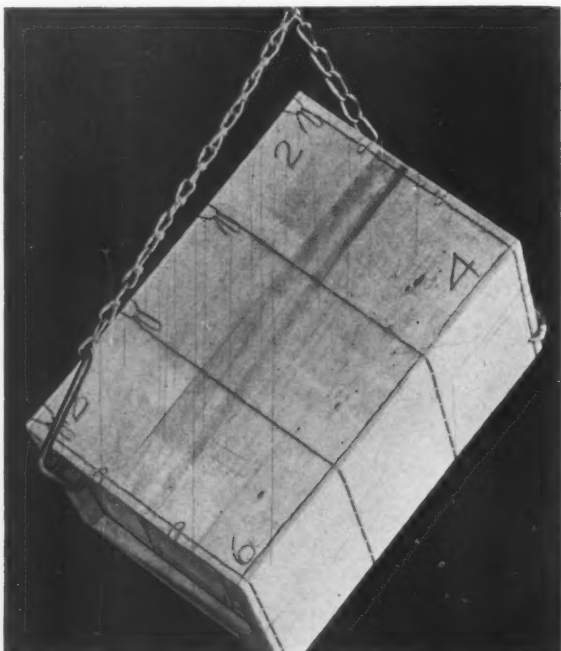
by Val Wright

Canned luncheon meat is one of the principal items of food being purchased by the U. S. Government for army export and lend-lease shipments. With shipping space at a premium because of the tremendous volume of goods now going abroad, particularly in view of the submarine menace, losses of product through damage in transit must be cut to a minimum.

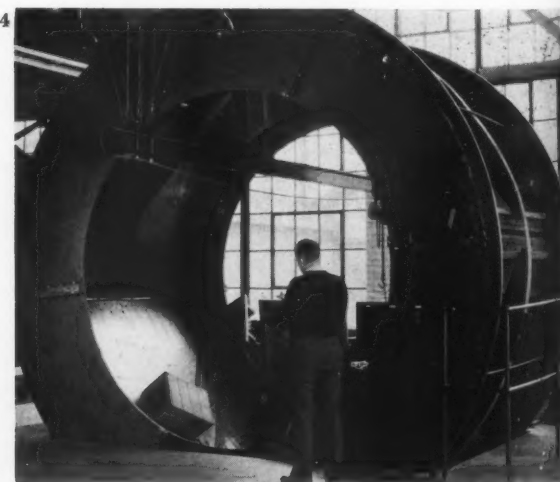
In order to determine packing methods which will assure delivery of canned luncheon meats abroad in satisfactory condition, the American Meat Institute, Chicago, through its committee on standardization of packages and supplies, recently completed extensive rough-handling tests on nailed

and wirebound wooden boxes, with and without interior packing. The tests were made in cooperation with the Package Research Laboratory, the Wirebound Box Manufacturers' Assn., American Can Co. and Continental Can Co. Scene of the tests was the Don L. Quinn Co. laboratory in Chicago.

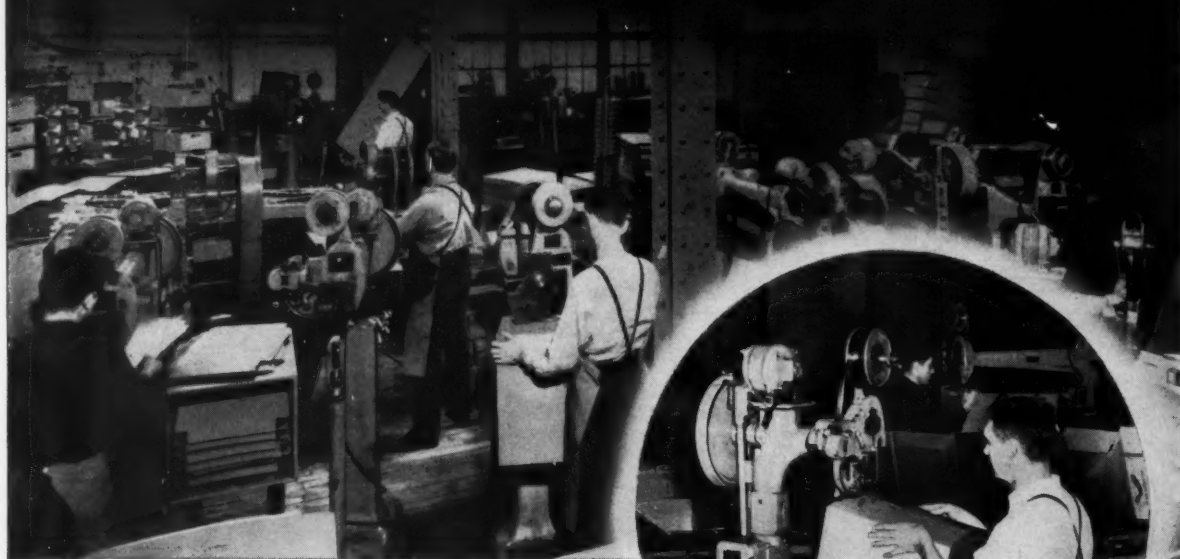
Six-pound cans of luncheon meat and 2½-lb. cans of chopped ham from Wilson & Co. were used in the tests. The cans were made, filled, closed, sterilized and inspected in the regular manner in the production line and were identical in all respects to those delivered on U. S. Government con-



3. Wirebound box suspended by chain shows method of dropping boxes in the drop test. 4. Standard rough handling machine (14 ft. diameter) used in the tests. It has a speed of one revolution (6 falls) per minute, consists of a hollow hexagonal drum whose interior faces are fitted with a varied arrangement of baffles, causing the container to slide, tumble and fall on all faces, corners and edges.



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*You can't duplicate
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● No other equally protective method of assembling and sealing corrugated and solid fibre containers could duplicate the speed of wire stitching.

Morrison Wire Stitching Machines, purchased before further manufacture was restricted, are in action in war plants where SPEED in packag-

ing is as vital as speed in manufacturing. Lack of those machines would prove a serious handicap in those war plants.

Guard those stitchers! Caution operators and maintenance men to keep them properly lubricated and correctly adjusted. *You can't duplicate their speed!*

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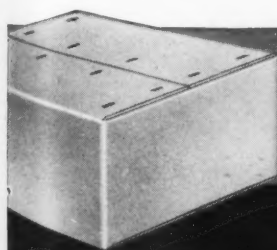
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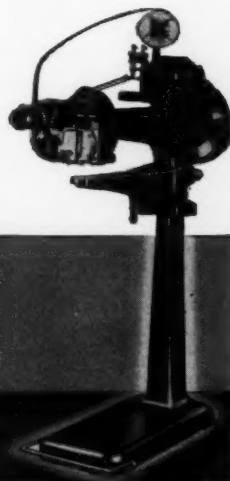
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MORRISON

WIRE STITCHING MACHINES



tract. The luncheon meat was packed in 9- and 12-can units and the smaller cans in boxes of 24 and 18.

Packed boxes were subjected to the drop test (30-in. drops on successive corners) and tumbled in the standard 14-ft. revolving drum for resistance to rough treatment. In each instance, a nailed box without interior packing was tested first and the amount of rough handling which caused it to fail was taken as standard for the succeeding boxes tested.

In two groups, one box was soaked in water for one hour and after draining 30 minutes was given 42 falls in the drum. In the second series of tests, three types of interior packing were tried and five boxes for twelve 6-lb. cans with each type of packing were given 42 falls in the revolving drum. One of each type was tested 36 falls, then soaked in water for one hour, drained for an hour and given six more falls. For the 2½-lb. cans, a pack of 18 was decided on and two types of interior packing were tried in both nailed and wirebound boxes.

Each can in every box was labeled to indicate its position in the box. After each test, all cans were removed and critically examined by representatives of the can companies for loss of vacuum and dents, cuts or other damage to the sides, seams, rims, top and bottom. Damages were given weights according to their relative seriousness and a score

determined for each box. All test results were exhaustively tabulated.

The principal conclusion drawn from the tests, according to American Meat Institute representatives, was that the use of interior packing was absolutely essential to the protection of the cans. "Interior protection should be provided for luncheon meat in both 2½-lb. and 6-lb. cans" states the report, "regardless of the type of outside container. This interior protection should be of proper size to protect the end seams of the cans and should be equal to the overall height of the can."

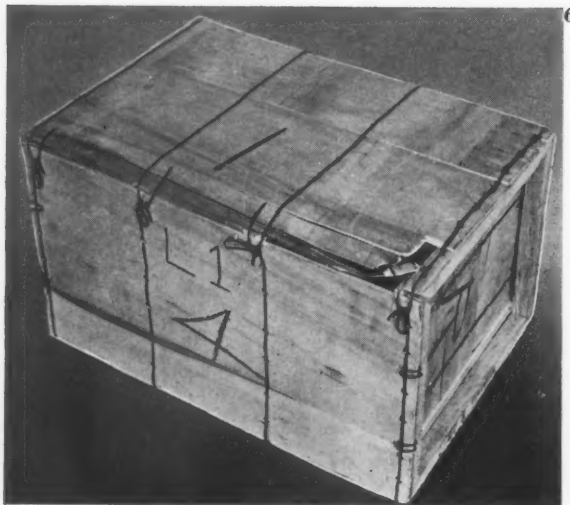
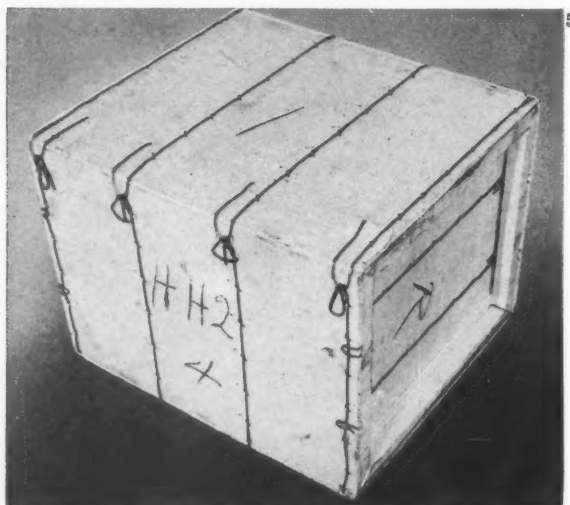
Data assembled in the tests indicated that wirebound boxes of proper specifications provide equally good protection to the cans as nailed lumber boxes when similar interior protection is used in both. Individual overpack unsealed sleeves for each can, made from scored B flute 200-lb. test corrugated board, when used with top and bottom pads, gave the best results. An overpack of a B flute corrugated container with interior partitions of the same material gave the next best results.

Other findings resulting from the tests that were conducted were as follows:

(1) Interior packing not only protects the cans but also the box itself, so that the box stands rough handling more successfully.

(2) Regardless of the type of package used, the dimensions should insure that the cans fit snugly into the box so there is no initial play between the cans when first packed. In determining the size of package to be used, allowance should be made for the dimensions of the cans and the thickness of the interior protection.

(3) B flute 200-lb. test (Continued on page 210)



5. Wirebound box with B-flute partitions and container (overpack); ¾-in. sides, top, bottom and ends; four 14-gauge girth wires. Two such boxes were tested; 36 cans out of the total of 36 remained merchantable after test. 6. This wirebound box, shown after 42 falls in drum, contained no interior packing. Of the 24 cans it contained, 22 were unmerchantable after drum test. 7. Nailed strap-bound box (damaged), contained no interior packing. It has 1½-in. sides, top, bottom and cleats and ¾-in. ends. Two ¾-in. by .020 straps are used. This box failed at 42 falls in drum. Of the 12 cans it contained, 11 were unmerchantable after the test; one, merchantable.



Field Duty...

• On farms, in factories, at fighting fronts...there are few packaging jobs too tough for Union Bag and Paper Corporation's kraft paper bags with famous "multi-wall" construction. From bagging of the fertilizers so essential to stepped-up farm production to shipping of food and other supplies for our armed forces and civilians, Union Bag's kraft packages and containers are serving, and serving well, in thousands of important tasks.

Today, kraft paper from the South's vast supply of pulpwood is doing a vital job in replacing metal, burlap and other scarce materials...meeting the specific, and often difficult, demands of an ever-growing number of industries.

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Union Bag & Paper Corp. offers highly efficient methods of packaging and shipping agricultural, chemical, fertilizer, food, rock products...affords a decided weight- and space-saving advantage.

IN THE FIELD OF WAR PACKAGING:

Union Bag & Paper Corp. is able to make bags from its wide variety of kraft papers, including those resistant to oil, grease and water, super-strong, non-scuff, flavor-sealing, fold-enduring, and eye-appealing...is able to make kraft containers that have one, or ALL of these important advantages.

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WOOLWORTH BUILDING, NEW YORK, N. Y.



KRAFT PAPER—THE SERVICE UNIFORM OF AMERICAN PRODUCTS

Idle machines put to work wrapping ration bars

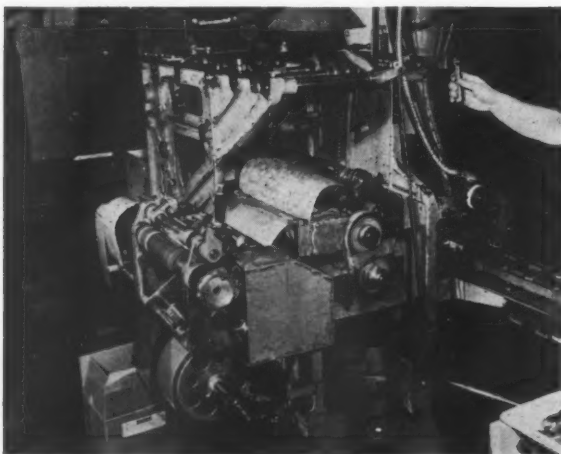
Millions of dollars worth of idle machinery around the country could be used if companies who need it could be put in touch with companies who have no further use for it.

The package machinery industry, because it has been limited in the amount of new machinery that can be produced for the duration, has been instrumental in getting a number of such prospective purchasers and owners together. These instances have saved a great deal of time for industries which have important war contracts.

Here is an example. The Hills Bros., Co. packers of Dromedary Dates and other food specialties, is now one of the leaders in packaging a fruit bar that goes into Army Field Ration K. The bar is being wrapped on machines which the company obtained from the D. L. Clarke Candy Co. of Pittsburgh. They got the two machines at the suggestion of Package Machinery Co., which manufactured them originally. The machinery company knew that Clarke had no current use for the equipment and were trying to dispose of it.

In the present military holocaust, a soldier's food is as different from the "canned willy" of World War I as the

Fruit bars wrapped as a component of Ration K and one of the candy wrapping machines converted to take a bar an inch and a fraction wide instead of its former load of a bar that was 2-in. wide. Change was made in three months.



Flying Fortress differs from the Flying Jennie of 1918. "Ration K" is a masterpiece of concentration, edibility and nutritional balance.

The breakfast unit of the Field Ration K contains a fruit bar, two packages of biscuits, a can of ham and eggs, a package of soluble coffee, three lumps of sugar, a stick of chewing gum and four cigarettes.

The inclusion of a bar of mixed fruit was largely the work of Arthur B. Schell, manager of Hills Bros. Brooklyn plant, which is now largely occupied with the production of food for the services and lend-lease. Many of the products it formerly packed for civilian consumption have been dropped for the duration. The development of the bar was undertaken at the request of the Quartermaster Corps Research Laboratory in Chicago, where Ration K and other army field rations have been conceived. The size of the bar and its moisture content were the only specifications Mr. Schell had to start with.

Several mixtures of fruits were submitted and one was selected by taste test. The weight of two ounces was compressed into a cardboard boat to form a package $3\frac{7}{8}$ in. long and a little more than 1 in. in each of its other dimensions. The bar is cellophane wrapped.

After arrival of the second-hand machinery, considerable time was needed in adapting the machines to the new requirements, but not nearly so much as if the company had had to wait for new machinery. Starting with the tray feed that supplied to each machine a "platform" or boat of brown cardboard (die-cut so that its four edges folded upward to form a $\frac{1}{4}$ -in. high receptacle for the fruit bar) to the finished and wrapped product, the machines had to be rebuilt to meet their wartime specifications.

Three months' work with special parts supplied by the manufacturer converted the machines to take the fruit bar instead of its former load of a 2-in. bar of candy. Tensions had to be eased to keep the bars from crushing as they went through the machines, for while a crushed candy bar can be cleaned out of the gears and runways with the blast of an air-hose, a crushed fruit bar gives operators a half-hour's job of scrubbing with hot water. Two machinists changed gears, chains, elevators, transports and folding mechanisms. Where glue had been used to seal the former package, a heat-seal device was installed.

The bar is wrapped from a continuous roll of cellophane after being hand-pressed into molds of the right size. Then, following close inspection, the bar is pasteurized by the company's patented process against fermentation and kindred ills.

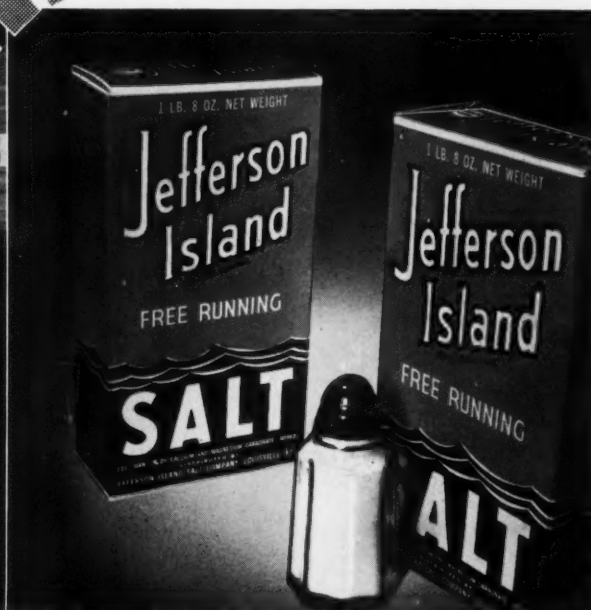
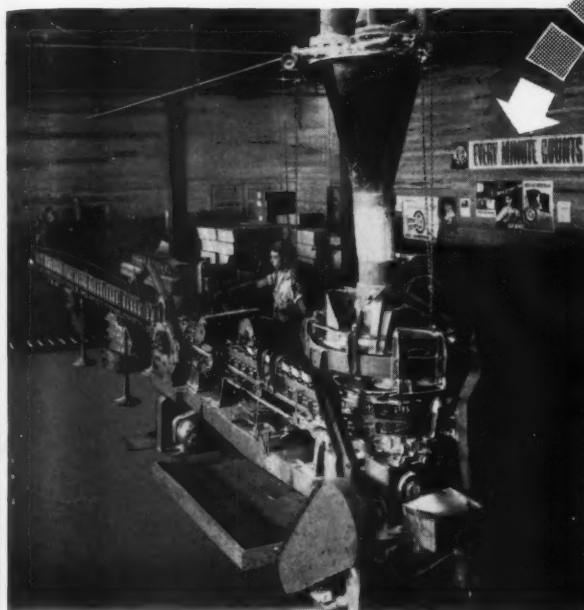
The Hills Bros. Co., in addition to packing the fruit bar, is a prime contractor for the assembly of Ration K, which includes breakfast, dinner and supper in separate packages. The dinner ration contains biscuits, a can of cheese and bacon or other meat-type food, a package of dextrose tablets, an envelope of lemon powder, three lumps of sugar, chewing gum and cigarettes. The supper ration has a can of meat, a chocolate bar and an envelope of soluble bouillon.

The meals are packed individually in kraft board packages, glue sealed and dipped in a solution of paraffin and microcrystalline wax—proof against infestation, vapor, gas and water. Three dozen units, or 12 rations, food for 12 men per day, are packed in weather-proofed fibre cartons which are inserted in wooden, nailed, wire-strapped boxes.

Where



EVERY MINUTE COUNTS



... there it pays to use Packaging Lines by S & S

FULLY AUTOMATIC S & S packaging lines, geared to high speed production, today are solving many a problem created by increased production demand and decreased labor supply. They're turning out all kinds of packaged goods . . . making every minute, and every man, count!

For example, there are two automatic S & S packaging lines operated by the Jefferson Island Salt Company at Jefferson Island, La. On them, filled and sealed cartons of Jefferson Island table salt are delivered at high production speed . . . 60 per minute . . . without the services of any operator other than one on each line to place stacks of cartons into the automatic carton feeder.

S & S machines take these flat cartons, open them, glue one end tightly, fill the package with salt from a rotary feeding head with adjustable pockets, glue the other end, dry the glue and press top and bottom tight before delivering the sealed packages either to a tight-wrapping machine where package is to be tight-wrapped with a printed label, or direct to the packer when the package is a lithographed carton.

STOKES & SMITH CO
PACKAGING MACHINERY PAPER BOX MACHINERY

Frankford, Philadelphia, U. S. A.

FILLING • PACKAGING • WRAPPING MACHINES

Questions and Answers

by the Technical Editor

This is a new department to give our readers a personalized service on their individual problems. To make packages that work in view of today's shortages becomes more and more perplexing. A query to our technical editor may save you time and money. Write to Charles A. Southwick, Jr. Technical Editor, Modern Packaging, 122 E. 42nd Street, New York City.

What adhesive for fibre can plies?

QUESTION: *In the construction of fibre cans for a product requiring a great deal of protection against moisture, would it be desirable to use a wax-type adhesive instead of paste for the body plies?*

ANSWER: It is not good commercial practice today to attempt to apply moistureproof films on fibre can body forming equipment. Spiral or convolute winders are designed primarily to form can bodies at high speeds using aqueous adhesives. It would be extremely difficult to attempt to use such equipment or even to design new equipment to operate at these speeds and to perform the other functions such as registration, cut off, etc., and to lay down moistureproof films at the same time. Most of the materials used for the bodies of fibre cans are paperboards, such as kraft, chip, newsboard. These boards do not lend themselves well as a base on which to apply moistureproof coatings. Their prime purpose is to provide wall strength and to take paste applications readily. The introduction of thick waxy films would result in a fibre body which was sensitive to temperature, that is, soft at summer temperatures and very stiff at low temperatures. Paste, on the other hand, gives a body greater strength and rigidity which is not affected by these temperature differences.

The best way to make a fibre can body with a high degree of moistureproofness is to select functional materials which can be used with aqueous adhesives without severe degradation. The fibre body may then be wound with sufficient plies or layers of this material to obtain the required moistureproofness of the package. For example, a common moistureproof body forming material is a well-finished news which has been combined with glassine with not less than 12 lbs. of waxy adhesive per 3,000 sq. ft. of surface.

Do coatings improve cellophane heat seals?

QUESTION: *I have been trying to improve the heat seals made with cellophane. My experiments have been to apply a coating in addition to that already on the cellophane film. However, I find that the resulting seals are not particularly improved. Can you tell me why this is true?*

ANSWER: The base material used in the manufacture of cellophane is a water-sensitive material. However, the lacquers which are applied on its surfaces are not water-sensitive but are applied by means of solvents. The result is that when two such surfaces are laid together and heat is applied, a fusion occurs between the two lacquer films. However, since the lacquer films are not soluble in the regenerated cellulose base, they do not penetrate this base and the result is a surface

seal and not a homogenous weld. Obviously, if there is sufficient lacquer on the surface and if it is not squeezed out by excessive temperature and pressure, the maximum seal strength will be obtained on the cellophane as purchased. This is especially true of the grades which are double coated. The result of adding additional films is not an improvement in the seal because the seal fails between the lacquer and the cellulose base. I suggest that you check your sealing equipment because many failures are due to sealers being in a poor state of repair. Commonest causes of failure are dirty, warped or rough jaw faces, poor regulation of temperature, or too much or too little pressure.

When to use cooling clamps

QUESTION: *Why do some heat-sealing mediums require cooling clamps to effect strong seals?*

ANSWER: Heat-sealing materials which are present as relatively thick coatings and which require long heating in many cases require the use of cooling jaws to effect a strong seal. If a sealing material absorbs a large amount of heat and is completely liquefied, it will require an appreciable time for the coating to be solid again. During this solidification process the seal should not be disturbed since it has no strength until the sealing medium has hardened. If the heat-sealing material is of high softening range and is not liquefied, the cooling jaws are rarely necessary. Usually cooling is always necessary with wax-like materials which have a low melting range and which have a latent heat of fusion which requires some time to be dissipated before the seal obtains its sealing strength.

Labels that blister on laminated chipboard

QUESTION: *Occasionally we receive shipments of printed and varnished paper labels which blister or lift when pasted on a laminated chipboard. How can this be corrected?*

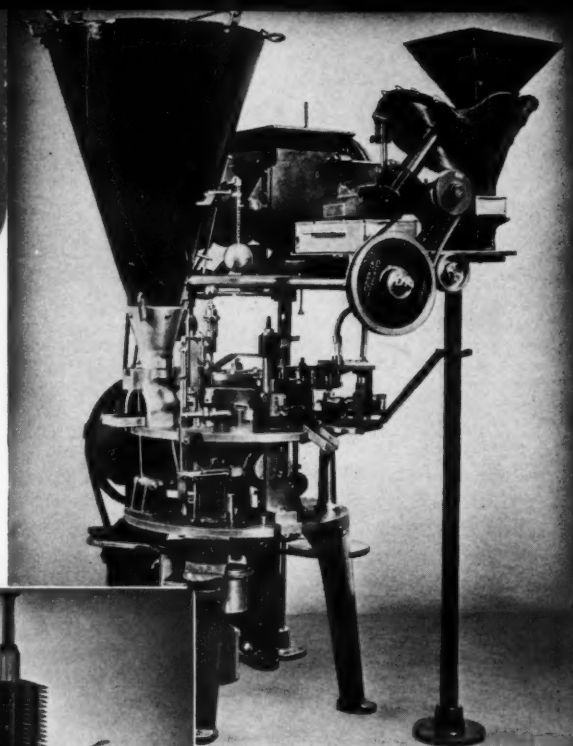
ANSWER: The blistering or lifting of the paper label is caused by the pressure of moisture vapor trapped under the label before the paste has dried. The first step in the solution of this difficulty is to reduce as far as possible the amount of water which is trapped under the label. This can be done in two ways: 1. By using the smallest possible amount of adhesive. 2. By using an adhesive with minimum possible moisture content. Another factor which will contribute to the solution of the problem is the density or finish of the back surface of the label. The label should be specified to have a rough or unfinished back. This type of label stock very quickly absorbs moisture and helps reduce the formation of blistered areas.

SPECIAL AWARD

FOR MACHINERY DEVELOPMENTS
AND MANUFACTURE

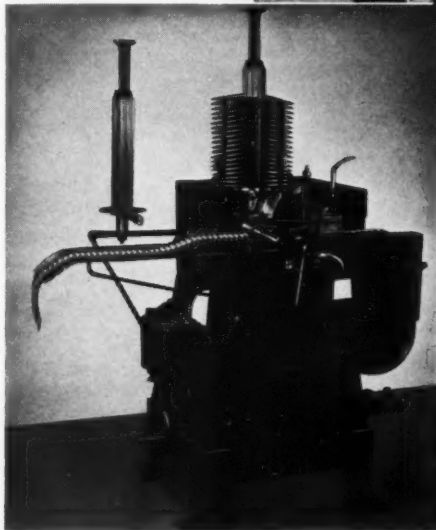
To Help America Fight!

To our customers the Award means that our energies are turned in the direction that will help all of us toward Victory, and the return to normal business, when all machinery and goods and services will be available to everyone.



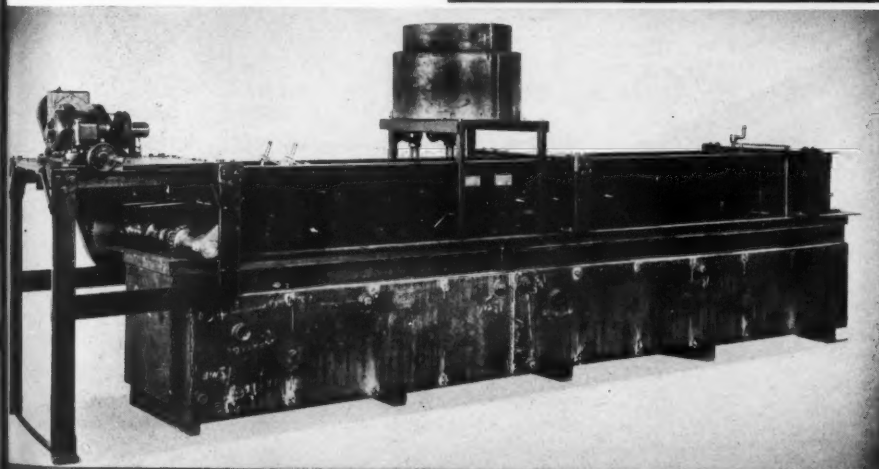
AUTOMATIC DIAL LOADER

This machine is manufactured for the Army. It unscrambles and sets into upright position, .45-calibre cartridges so that the shells can be filled with powder and properly topped with projectiles.



AUTOMATIC BELT LOADER

This machine was developed to help the Army load .30-calibre machine-gun bullets, in all desired sequences, at high speeds. It loads at the rate of 260 bullets per minute directly and exactly into belts.



WAXING MACHINE

This Standard-Knapp machine was developed to apply a flexible wax coating to ammunition boxes and ration 'K' cartons, and it effectively seals these packages from all dirt, moisture, etc.

STANDARD-KNAPP CORPORATION

MANUFACTURERS OF CASE SEALING, CASE PACKAGING, AND CAN LABELING MACHINES

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Folding box makers hold war convention

Association survey shows millions of pounds of critical materials saved through efforts of members

Three hundred representatives of the Folding Paper Box Assn. of America attended the association's annual convention March 3 to 5 at the Blackstone Hotel, Chicago. It was the largest attendance in the history of the association, according to the annual report of Walton D. Lynch, chairman of the executive committee last year, and grew from 135 to 159 member companies within the year.

"Folding Paper Boxes Go to War" was the theme of the meeting attended by officials from nearly 100 companies. This theme was the substance of a series of talks by government experts and the convention exhibits. It left no doubt of the importance of the folding paper box in the prosecution of the war.

Frills were largely eliminated in this wartime convention. Business meetings occupied all the time except for a banquet Thursday night, March 4, at which the war theme continued in an address by Stanley Johnston, *Chicago Tribune* war correspondent, who was aboard the aircraft carrier Lexington when it was sunk in the Coral Seas.

W. W. Fitzhugh, president of William Fitzhugh, Inc., was named new chairman of the executive committee to succeed Walton D. Lynch of the National Folding Box Co.

Others named on the executive committee were: Ralph R. Richardson, Chicago Carton Co.; R. L. Sniderman, American Coating Mills; J. P. Thomas, U. S. Printing and Lithograph Co.; M. G. Fessenden, Ace Carton Corp.; Colin Gardner of Gardner-Richardson Co.; and Mr. Lynch. A. E. Murphy, Chicago, continues as executive secretary.

The new chairman resigned February 26 as a deputy chief in the Containers Division of WPB but continues as consultant to that group.

Leading speakers at general sessions were C. V. Hodder, Canadian administrator of packages and converted paper products; Spencer Gordon, Washington, D. C., general counsel of the association; Nathan Frankel, former counsel on industrial relations for the mayor of New York; Ralph R. Richardson of the association's Packaging Bureau and F. S. Symington, chairman of the association's Development Committee. The latter two have worked closely on plans for adapting paper boxes to war uses.

A large display filling the north end of the ballroom in which general sessions were held illustrated hundreds of folding box uses in the war, including conversions from tin and other strategic materials and many packages used by the armed forces for rations, ammunition, gun parts, drug products, etc.

A placard with this display announced facts gathered by the association through questionnaires during the past year. This showed that efforts of members had been responsible for the following savings of critical materials:

- 215,245,820 lbs. of metal through packaging conversions by 75 folding paper box manufacturers.
- 36,000 lbs. of rubber hydrochloride sheeting.
- 740,000 lbs. of glass.
- 12,000 lbs. of rubber.
- 220,094 lbs. of cellophane.
- 8,034,800 board-feet of various kinds of wood and lumber.

1,952,074 lbs. of metal salvaged from old plates by 115 folding box manufacturers.

Franklin Kelly, chief of the Folding and Set-up Box Section of WPB, and A. W. Luhrs, chief of the Experimental Packaging Section, have asked that the display be placed in Washington and arrangements are being made to do this, it was announced.

The association's first packaging competition, held at the convention, brought 137 entries and awards of silver medals and certificates were made in each of 10 classifications as follows:

1. Drugs and proprietary medicines: National Folding Box Co. for Aspirin, Corax and magnesia tablet boxes used by McKesson & Robbins, Inc.
2. Toilet requisites: Great Lakes Box Co. for manicure cotton box used by Forest City Products, Inc.
3. Electrical, radio and automotive goods: American Boxboard Co. for multiple battery box used by Ray-O-Vac Co.
4. Food products: Waldorf Paper Products Co. for 20-lb. frozen-egg box used by Armour & Co., Cudahy Packing Co., Swift & Co. and Standard Brands, Inc.
5. Confectionery products: Continental Folding Paper Box Co. for mint and rum wafer packages used by Rockwood & Co.
6. Hardware products: Gereke-Allen Carton Co. for packing Ramco 10-up piston rings used by Ramsey Accessories Mfg. Co.
7. Household goods: Franklin Folding Paper Box Co., Inc., for bath towel "book-box" used by Sears-Roebuck Co., Chicago.
8. Tobacco and related products: National Folding Box Co. for flat-50 cigarette boxes used by American Tobacco Co. for Lucky Strikes; Liggett & Myers for Chesterfields, and R. J. Reynolds Tobacco Co. for Camels.
9. Miscellaneous products: Atlantic Carton Corp. for thermos bottle lunch kit used by the American Thermos Bottle Co.
10. Direct war materials: National Folding Box Co. for RCA radio tube part containers, including (a) anode clip tray, (b) tote tray, and (c) stem box used by Radio Corp. of America, Radiotron Division.

Willard F. Deveneau of the National Folding Box Co. was chairman of the packaging competition committee and other members were Mr. Fitzhugh; William D. Lane, the Eggers-O'Flynn Co.; Arthur I. Harris, Atlanta Paper Co.; Lou W. Sutherland, Sutherland Paper Co.; Harry C. Stevenson, Rochester Folding Box Co.; Charles Ruble, Standard Paper Box Corp.

Mr. Lynch, in his annual report, spoke favorably of the work of the Development Committee and the Packaging Bureau in aiding wartime conversions and praised the Traffic Committee, headed by C. L. Fenstermaker of the Sutherland Paper Co. for work in connection with railroad rate classifications for the industry.

The chairman also said that Mr. Murphy, the executive secretary, has established (Continued on page 214)

WASHINGTON REVIEW

by G. T. Kellogg



● **New Container Chief**—Roswell C. Mower has been named director of the Containers Division, WPB, succeeding Charles L. Sheldon, resigned. Mr. Mower joined WPB last July as a special assistant to the director, and was made deputy director in December. He is vice-president of the Manz Corporation, Chicago, color and catalog printers. Mr. Sheldon has returned to the Hood Rubber Co., Watertown, Mass., where he is purchasing agent. He had been with WPB and its predecessor agency, OPM, since September, 1941. Other changes in the Division include the appointment of E. F. Tomiska, assistant director, as deputy, succeeding Mr. Mower, and of Allan L. Brack, chief of the fibre section, to Mr. Tomiska's previous post of assistant director.

● **New Overseas Shipping Specs**—A new set of packaging and container specifications for overseas shipment of war materials has been issued by the Container Coordinating Committee, WPB. The booklet is entitled "Army-Navy General Specifications for Packaging and Packing Overseas Shipments," and its official designation is U. S. Army Specification No. 100-14A (superseding 100-14) and U. S. Navy Specification 39P16A (superseding 39P16).

All shipments of war materials and supplies, whether scheduled for immediate shipment overseas or for delivery to storage and subsequent shipment overseas, must comply with the requirements and instructions given in the booklet.

Albert Luhrs, chairman of the committee, said that the booklet marks the first time such specifications for overseas shipment have been prepared. He said that the specifications are designed to satisfy the requirements imposed by unusually severe conditions encountered in overseas shipment during wartime.

Special care has been taken to provide adequate protection against corrosion of machine parts and against moisture so that machine parts, assemblies, delicate instruments, etc., may be in a satisfactory operating condition as soon as they are unpacked. Copies may be obtained at the Containers Division or at any of the co-operating agencies.

● **New Order Curtails Shipping Containers**—A new order, P-140, issued by WPB, assigns high preference ratings for the procurement of shipping containers for military and essential civilian products, producers and shippers of military combat equipment, lend-lease materials, foods, and many other essential items, and leaves many non-essential items out in the cold.

The order assures containers for shipping of many millions of dollars worth of products, including materials used by farmers, manufacturers, tobacco processors, flour millers, bottlers, textile mills, chemical plants, meat packers, fishermen, and others.

It covers all outer wooden containers which are made from lumber, veneer, ply-

JOINS STAFF



R. L. Van Boskirk

R. L. Van Boskirk, formerly of *Nation's Business*, will take over as Washington editor of *Modern Packaging* for G. T. Kellogg, another member of our staff on leave to join the armed forces in March. Mr. Van Boskirk was born in Marengo, Iowa, "too long ago to remember," he says. He enlisted in the National Guard and served on the Mexican Border and through World War I. He learned the printing trade and small town newspapering while going to high school under Frank Mott, now Dean of Journalism at the University of Missouri. He was graduated from Northwestern University, School of Journalism, in 1928 and worked nights in Chicago printing offices while going to the university. He carries a demit from Chicago Typographical Union. He went to *Nation's Business* upon graduation and has been covering Washington news and doing editorial chores for that magazine ever since. During the past year, he has covered in detail stories on manpower, price ceilings, shortages, food problems. He has been predicting manpower shortages since last April and his story on the agricultural manpower situation beat dailies and weeklies on the seriousness of the food situation. Under hobbies he lists gardening, specializes in fancy, big yellow tomatoes, which should be no food problem in the Van Boskirk household.

wood or staves, and outer shipping containers which are made from corrugated or solid fibre. It also includes parts, such as shooks, cleats, staves, veneer, plywood, corrugated or solid fibre which are cut to size for these containers. Under its provision, preference ratings are assigned for the procurement of shipping containers according to the importance of use. If a producer or shipper experiences difficulty in securing containers without a rating, he may apply for a rating on Form PD-802. Ratings assigned under the order will be the only ratings (other than AAA ratings) usable for the purchase of wooden and fibre shipping containers regardless of any other order or certificate.

● **Amendments to M-81**—Conservation Order M-81 was amended March 12 and a complete new order issued. Changed provisions call for use of No. 10 cans to the greatest practical extent for fruits, vegetables and juices intended for the armed forces, lend-lease and other government agencies. Other changes are (1) removal of size and material restrictions from Schedule 3 items which include dangerous chemicals, lubricating greases, oils and blood plasma. (2) Use of blackplate for ends for fibre baking powder cans is restricted to frozen blackplate. (3) Permitted in fibre-bodied cans now are casein paste paints and vegetable protein paste paints. (4) Restrictions are removed on use of tinplate for packing honey in 60-lb. cans and for nicotine sulphate in 5-lb. cans during 1943.

Paint manufacturers are permitted to continue use of fibre-bodied cans with metal ends under the terms of Conservation Order M-81, as amended February 20. A paint manufacturer may now pack 35 per cent of his 1942 volume in 1-gal. fibre-bodied containers with blackplate ends. He may, however, use for the bottoms only 50 per cent of frozen blackplate or blackplate rejects.

Other changes in the order are as follows:

Maple Syrup: 1-gal. and larger tins are allowed for packaging. Previous use of such cans had been prohibited. Use of tin for this purpose is restricted to tinplate which was frozen in inventory on December 9.

Ointment and Salve: Unlimited manufacture of 1/4-, 1/2- and 1-oz. boxes for medicated salve and ointment is permitted from frozen tinplate and blackplate and rejected blackplate.

Condensed Milk: The can size is changed to 14 ozs. instead of 15 ozs.

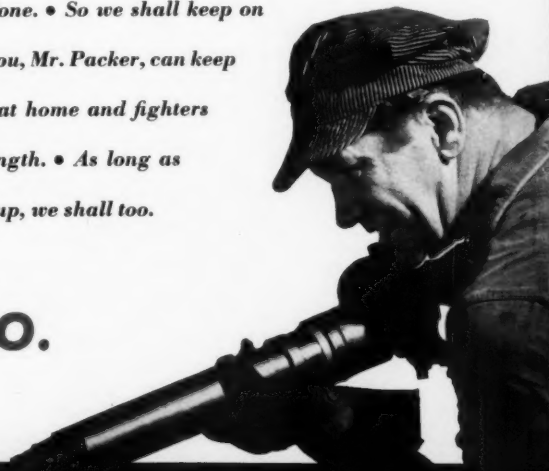
Liquid Edible Oils: Manufacturing of a 5-gal. re-usable tin can is permitted for packaging cottonseed oil, soybean oil, peanut oil and other liquid edible oils. During 1943, a manufacturer may not make more than 50 per cent of the number of 5-gal. liquid oil cans he produced in 1942. Production of such cans was previously prohibited.

(Continued on page 188)

Let's keep it up



The news is better as we go to press, but our fighting men continue as if each stand might be the last—as if each engagement must be a major one. They know being caught off guard would be dangerous. • Here at Hazel-Atlas we, too, are happy that the ultimate goal is now more than a possibility. We'd like to start talking about the future, but that would be getting caught off guard, for there's still a tremendous job to be done. • So we shall keep on producing standardized containers so that you, Mr. Packer, can keep up your splendid work in providing workers at home and fighters everywhere with the Munitions of Strength. • As long as the fighters and workers keep it up, we shall too.



HAZEL-ATLAS GLASS CO.

WHEELING, W. VA.

Paste Soap: Metal cans may be used only for the packaging of mechanic's hand soap. The cans may be made only from frozen blackplate and blackplate rejects. Previously they could be made from any blackplate.

Toilet Bowl Cleaners: The type of toilet bowl cleaners which may be packed in metal containers until June 30, 1943, is restricted to cleaners containing at least 70 per cent bi-sulphate of soda. It is expected that fibre containers will be available after June 30.

Shoe Polish, Leather Dressing and Saddle Soap: The period in which manufacturers may use metal cans has been extended from March 31 to June 30.

Bacon: May be packed in 24-oz. cans as well as 14-oz. for lend-lease shipment.

Butter, Oleomargarine, Citrus Concentrates: May be packed for first time in No. 10 cans for lend-lease.

Copper Bottom and Anti-Fouling Paint: Quota restrictions on packaging are removed. Entire supply of such products packed in tin is restricted to maritime and naval use. Previously, packaging of these products was limited to 1942 levels.

● **Conserving Wax Paper**—By reducing wax paper household rolls to standard weights of 18 and 21 lbs., by eliminating lengths of less than 125 ft., by restricting weight of cores to 25 lbs. per thousand rolls and by other simplification measures, WPB expects to save 7,250 tons of paper and paperboard. The new order was issued February 20 as Schedule X to Limitation Order L-120.

● **Plenty of Silica Gel**—Because new producers have entered the field, General Preference Order M-219 has been revoked. There is now enough to allocate 100 per cent of requirements and the largest units which will produce silica gel are not yet in full production. Principal use of the material is to protect ordnance items against moisture.

● **What Are Frozen Can Materials?**—The term "frozen" as applied to can materials means "frozen" tinplate, terneplate or blackplate which, since December 9, 1942, has been held in the inventory of a can manufacturer or his supplier for the following reasons: The plate has been so processed, or was of such size, gauge or grade that it was not suitable for the manufacture of cans for which tinplate, terneplate or blackplate are specified, without qualification, in the various schedules of Conservation Order M-81. (Interpretation No. 1 of Conservation Order M-81.)

● **Container Board Restrictions Removed**—All limitations on production of container board, folding-box board, set-up box board and special industrial boards were removed through issuance of General Conservation Order M-241 as amended February 23. Since most of the raw ma-

terials for these special boards are waste materials, lifting of quota restrictions will not affect basic pulp supplies.

● **Standardized Paper Bags**—Order L-261 to standardize and simplify grocers' and variety paper bags applies to the majority of paper bags used by grocers, department stores, 5- and 10-cent stores, dry cleaners, shoppers and similar users. It covers the following bags: Grocers, candy, garment, pants, laundry, liquor bottle, notion, millinery, shopping, and extra duty sugar. Bags for export shipment and those made to order for a specific product, such as coffee, peanuts and flour, are exempted.

The order also imposes restrictions on the amount of grocers' and variety bags that dealers and users may have in their inventory, and the amount of paper that manufacturers of bags may have on hand for such bags.

The effect of the order will be to eliminate non-essential bags and duplicate grades of bags. The number of bag sizes is reduced from 284 to 117, and the number of stock items is cut from 297 to 122.

Beginning March 1, bag manufacturers have been permitted to make grocers' and variety bags for stock only in conformity with type, size and paper grade specified by schedule A in the text of the order.

A bag manufacturer may make, for stock, any other grocers' and variety bag which will represent a paper saving over any comparable bag permitted by Order L-261, if the bag is in sufficient demand to warrant its manufacture. However, in order to make such a bag, special advance authorization must be obtained from WPB. Application for such must be by letter outlining facts in detail.

● **New Bulletin for Prospective War Contractors**—A new edition of the Army Purchase Information Bulletin has just been issued by the War Department. It is of particular interest to small business organizations in that it provides detailed information on basic methods of Army procurement. It lists the eight separate purchasing departments, gives their locations and tells what each buys. A special section is devoted to those purchases made locally, by Army Exchanges and by posts and stations. The Bulletin calls particular attention to the representative of the Small War Plants Branch assigned to all Procurement District Offices whose function is to aid small business in obtaining contracts.

● **Fruit and Vegetable Wooden Containers**—Limitation Order L-232 applies to all wooden containers of the types customarily used for packing fresh fruits and vegetables for sale or shipment. It includes wooden boxes, cases, crates, hampers, round stave baskets, climax baskets, grape baskets, till baskets or berry cups, which are made in whole or part of lumber, veneer or plywood.

It prohibits marking or painting boxes in such a way to limit their re-usability. The effect of the order will be to eliminate odd and fancy containers, and special containers designed for only one use. The types of containers are reduced from several hundred to 72.

Fruit or vegetable packers who need non-standard containers to fill military and lend-lease orders must furnish their container or parts supplier with a brief written certificate stating that non-standard containers are required to fill government orders.

● **Baking Powder Shows Symptoms of Shortage**—There is possibility of a tight situation developing in some of the raw materials needed for baking powder. Producers have been requested by the Food Distribution Administration to make estimates of their requirements for raw materials and containers. The data will be used in providing a stockpile of scrap material for making the metal tops and bottoms of fibre containers used by this industry. Companies will report the number of cans, by size and dimension, used the last six months of 1942 and the estimated number required for the last six months of this year.

● **Special Allocation for V-Boxes**—Beginning in April, container-board mills are directed to set aside 25 per cent of their monthly kraft and jute containerboard production for allocation by WPB to container manufacturers making V-boxes for the armed forces and lend-lease, under the terms of Conservation Order M-290. V-boxes are a new type of shipping container made from solid or corrugated fibre and developed to replace wood for many military and lend-lease export shipments. The Director General for Operations may direct any mill to produce the allocated quantities in specified grades and to ship them to the designated container manufacturers.

● **Binder Twine Needed**—Harvesting wheat or oats without binder twine would be a difficult undertaking, but there is a dangerous shortage due to a lack of East Indian sisal. The government has asked paper makers to come to the rescue in the hope that twisted paper may be developed as a substitute.

● **Farmers Sign Up for Hemp Acreage**—Mid-West farmers have signed up to grow 185,000 acres of hemp for fibre. Sites for 42 mills have been selected in addition to six privately owned plants already in operation. It is expected that the yield will amount to 75,000 tons of fibre.

● **Shipment of Leased Machinery**—An amendment to General Limitation Order L-83 now permits shipment of frequently leased machinery such as can-making and closing machines. (Continued on page 210)

TRY THIS *Protective Paper* ON YOUR PACKAGE PROBLEM

► *Greaseproof...*

Far exceeds Government specifications

► *Flexible & Non-Flaking...*

Permanent protection and no flakes to gum precision parts

► *Heat-Sealing...*

Forms a bond stronger than the paper

► *High Heat Resistant...*

Protection against high temperatures

► *Waterproof...*

Furnished, where required, for "breather type" packaging



REPELALL papers comply with requirements for Greaseproof materials as specified in the Army-Navy General Specifications for Packaging and Packing for Overseas Shipment. U. S. Army 100-14A, U. S. Navy 39P16a issued February 15, 1943.

★ *New* MNW-90-10 ★

These papers are successfully protecting metal sub-assemblies, replacement parts and complete assemblies for the Army and Navy.

★ ★ *A N N O U N C E M E N T* ★ ★

We are devoting our energies to producing greaseproof and waterproof papers for the Government. HOWEVER, we are still able to supply most of the box-covering papers which were manufactured for the box-makers. A surprisingly wide assortment is still available.

HAZEN PAPER COMPANY, HOLYOKE, MASSACHUSETTS

Special Award

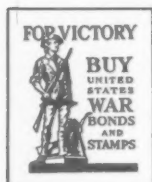
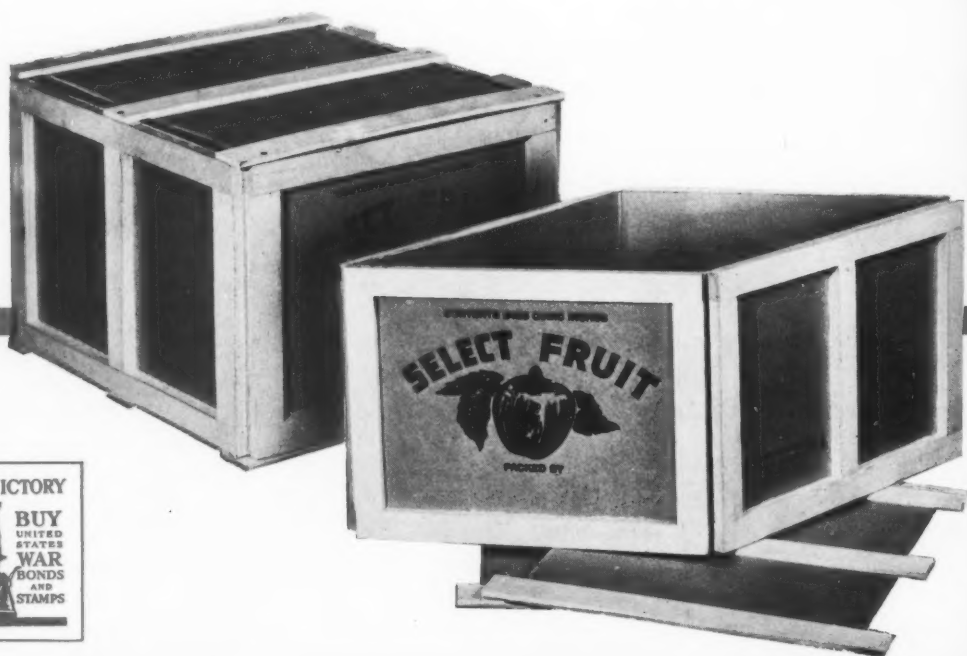
FOR THE CREATIVE

An improved package that SAVES WOOD:

For years the fruit industry has tried to find a fruit box which would give maximum protection—which only paperboard can do—and yet be strong enough for stacking, shipping and cold storage—which only wood could do.

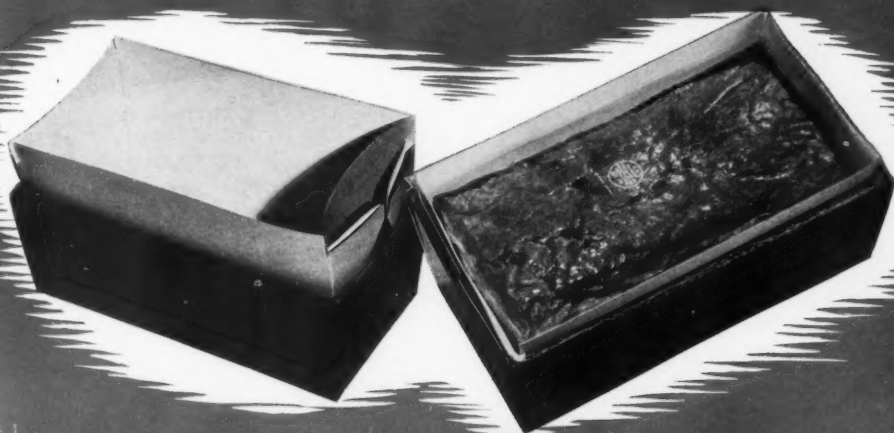
This Award Winning fruit box is made of scrap ends of wood, cushioned on all six sides with corrugated paperboard. It is shipped flat, partially assembled. The assembly is completed with minimum effort in the packing operation. It withstands all the rigors of cold-storage and handling. Its cost is in line with the packaging costs of the industry.

The box had ready acceptance, and was used extensively last season.



APPLICATION OF PAPER

An improved package that SAVES METAL:



AWARD TO BASIC FOOD MATERIALS, Inc.

MEAT PRODUCTS CLASSIFICATION—ALL-AMERICA PACKAGE COMPETITION

The metal pans, in which scrapple, sandwich meats and other meat products were formerly processed and sold, are no longer available. Ohio Boxboard designers worked with Basic Food Materials, Inc., to develop this paper tray in which meats are now actually being *cooked* and *sold*. It consists of a corrugated paperboard tray and a laminated paperboard liner, which is both grease and moisture-proof. The inner liner is sanitary, and is disposable, while the outer tray is re-usable. Both parts withstand 350° F.—the temperature at which the meat is processed, without disintegration. The container costs less than the former metal pan.

This package has been enthusiastically received by meat processors, and is now gaining the attention of the baking industry.

Congratulations to Basic Food Materials, Inc., for this splendid achievement. We were glad to have had the opportunity to work with them, and to produce this Award winner.



THE OHIO BOXBOARD CO.

RITTMAN, OHIO

SALES OFFICES:

RITTMAN

CLEVELAND

PITTSBURGH

NEW YORK

CHICAGO

500 TONS DAILY

Folding Cartons, Corrugated and Solid Fibre Shipping Containers, Paperboard

U. S. patent digest

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 10 cents each.

BOX CONSTRUCTION. W. H. Inman (to Bloomer Bros. Co., Newark, N. Y.). U. S. 2,311,053, Feb. 16. A one-piece, cardboard blank for a carton, cut and scored for folding to form a front wall, a bottom, a rear wall, a cover and a core securing flap, in said order from edge to edge of said blank, said bottom having flaps at the ends thereof for folding to form the end walls of the carton, said bottom flaps having tabs at their outer ends for folding inwardly of the carton toward each other, said rear wall having end flaps for folding over said end walls and provided with adhesive for attachment thereto.

FOLDING BOX. W. Trogman, Chicago, Ill. U. S. 2,312,507, March 2. In a box, a handle structure including the provision of shaped openings in a wall of said box, and a U-shaped handle element comprising a bight portion joining two parallel side portions and end portions offset from a plant struck through said bight and side portions and extending laterally therefrom so as to lie in a plane parallel with a plane containing the bight portion of said handle element.

DISPLAY STAND. M. A. Smith and W. G. Wilcox (to Chicago Carton Co., Chicago, Ill.). U. S. 2,312,594, March 2. A paperboard display stand of the class described, comprising a tubular body having connected front, back and side walls, and a two-ply partition extending between an oppositely disposed pair of said walls, the plies of said partition being foldably connected along on longitudinal edge and the ends of the respective plies being connected to said pair of walls, and a bottom for said body member secured at one end to one of body walls.

DISPLAY CARTON. M. A. Smith (to Chicago Carton Co., Chicago, Ill.). U. S. 2,312,595, March 2. A display carton comprising a receptacle having bottom, side and rear wall portions and an easel structure depending from the sides and rear of the container for supporting the same in inclined display position, said rear wall comprising a pair of flaps respectively foldably connected to the rear ends of the respective side walls and folded into mutual overlapping rear wall forming position, and said easel structure comprising a pair of triangular sections intervening between and integrally connecting the respective side walls and the bottom of the container.

CONTAINER. C. B. Sprague (to American Box Board Co., Grand Rapids, Mich.). U. S. 2,312,598, March 2. In a container, the combination with an elongated box having square ends thereon and four sides, of an opening in each of two adjacent sides near the common corner thereof, and a tap secured to the edge of each opening adjacent said corner folded inwardly and overlapping each other to form a handle.

A DISPLAY AND SHIPPING CONTAINER FOR CUT FLOWERS, ETC. C. H. Ballard, A. N. Banter and S. E. Hays (to Lindley Box & Paper Co., Marion, Ind.). U. S. 2,309,742, Feb. 2. A display container for cut flowers, including an inverted somewhat triangular shape body portion, a blossom nesting head portion at the upper end of the body portion and extending angularly thereof in depressed relation thereto, and a plurality of spaced tongue means extending from one side of the body portion to the other and across and above the body portion.

DISPLAY CARTON. H. A. Cowles and G. W. Simpson (to Cowles share to Simpson), Rochester, N. Y. U. S. 2,309,753, Feb. 2. A carton for packaging and displaying a pair of sun glasses or similar article, a foldable box body including a bottom wall, front and rear walls, closure flaps providing end walls and a top wall, said walls and flaps providing a closed rectilinear carton adapted to contain and completely conceal a packaged article.

CONTAINER. C. W. Evert and A. W. Werner (to Downing Box Co., Milwaukee, Wis.). U. S. 2,311,040, Feb. 16. A container formed of fibreboard, or the like, with reinforcing means of rigid material extending along the upper edges of oppositely disposed walls, cover members foldable toward each other from two other walls of the container, a reinforcement on the free edge of each cover member, there being recesses adjacent the ends of said cover reinforcements in the lower edges thereof.

CONTAINER. R. C. Carlson (to J. J. Emery of Emery Carpenter Container Co., Cincinnati, Ohio). U. S. 2,311,291, Feb. 16. A paperboard container which is comprised of a cylindrical body portion made up of laminations of paper material having a marginal laminated portion at one of its ends turned inwardly to provide an integral flange, the said flange being

made up of interconnection pleats formed by interconnected reverse folds, the said pleats symmetrically overlapping the material contiguous therewith and extending radially toward the body portion in spaced circumferential relationship.

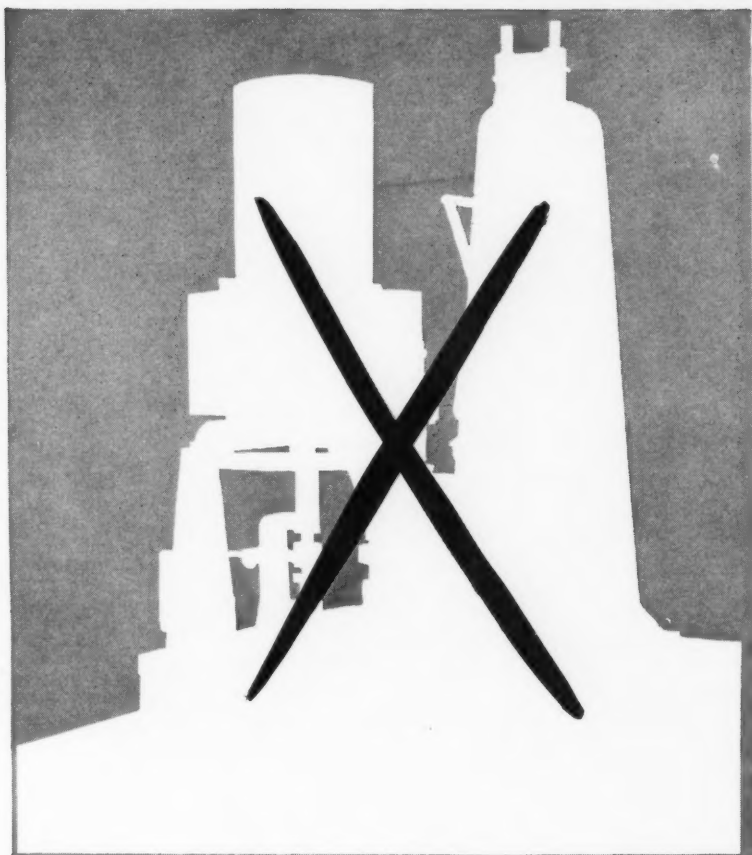
BAND SAW PACKAGE. R. J. Wilkie (to Continental Machines, Inc., Minneapolis, Minn.). U. S. 2,310,140, Feb. 2. A saw band package comprising complementary shallow box sections telescoped flatwise one within the other and both sections having flat bottom walls and integral side walls, the side walls of the two sections having aligned openings, a coil of highly springy metal saw band in the box with its outer coil frictionally and tangentially engaging the side walls of the inner box section and the outer portion of the coil extending tangentially therefrom to project through the aligned openings to enable a length of coil to be pulled out of the box against the tendency of the expansive force of the coiled band to hold the same in place.

SHIPPING AND DISPLAY PACKAGE FOR CANDY SUCKERS. W. R. Dieter, Williamsport, Pa. U. S. 2,311,934, Feb. 23. A shipping and display package including four independent parts of corresponding shape, two of which fit the two intermediate members and constitute removable top and bottom covers whereby a portion of the contents of the package may be displayed and removed by removing the uppermost cover, and the remaining portion of the contents of the package displayed and removed from the package by first inverting the package, and thereupon removing the then uppermost cover.

PACKAGE WITH OPENER. P. O'C. White (to White Cap Co., Chicago, Ill.). U. S. 2,311,719, Feb. 23. The combination of packing receptacle having a peripheral projection below its mouth and a portion thereabove for frictionally retaining a closure on its mouth, and a closure forcing device having a resiliently distensible loop portion embracing the receptacle with a part engaged under said projection to retain the forcing device on the receptacle independently of the closure.

MACHINE AND APPARATUS FOR PACKING FLOUR, MILLFEEDS, AND THE LIKE. A. Sowden, Arkansas City, Kans. U. S. 2,311,706, Feb. 23. A machine combining with a packing chamber tube, suitable material supply means to the same, a vertically movable tube telescopically mounted with respect to said packing chamber tube, a vertically movably shaft extending axially through said tubes.

X
Marks
the
Spot



... and a hot spot it was—Wright's Humidor Packer for automatic packaging of dehydrated foods in pasteboard cans. Now temporarily blanked out while our facilities are directed toward keeping our boys in the Solomons, Tunisia and points in between, supplied with the finest equipment that only our 50 years of engineering experience and skill can produce.

But this war job we are doing is accelerating our technical progress, increasing our productive facilities and stimulating our inventive genius for the peaceful years ahead.

We'll be ready when the time comes—and in the interval our service department is committed to keeping every piece of Wright Equipment functioning at peak efficiency.

WAR SAVINGS BONDS



EVERY PAY DAY

Wright's more than 700 employees are signed 100%—are contributing 12.6% of total salaries and payroll.

ESTABLISHED
• 1893 •



PACKAGING
ENGINEERS

WRIGHT'S AUTOMATIC MACHINERY COMPANY
DURHAM CABLE ADDRESS YONWRIGHT NORTH CAROLINA, U. S. A.

Equipment and Materials

SYNTHETIC RUBBER PRINTING PRESS ROLLS

The Goodyear Tire & Rubber Co. disclosed that test rolls of "Chemigum," the company's synthetic rubber, have been successfully adopted to the rolls for printing presses. These rolls have been used to turn out newspapers and magazines in various sections of the country. They are said to swell and distort less than natural rubber under the influences of inks and cleaning substances, and possess good wearing qualities.

SYNTHETIC RUBBER-LIKE ADHESIVE

The Plastics Department of E. I. du Pont de Nemours & Co. have announced a new adhesive, developed primarily to seal the protecting paper to highly polished, crystal-clear plastic noses for bombers and fighter planes through handling, shipping, fabricating and assembly. The material will save hundreds of thousands of pounds of crude rubber, according to the company. It is said to have no chemical effect on the plastic, causes no swelling or discoloration, and is capable of withstanding extreme temperatures and humidity.

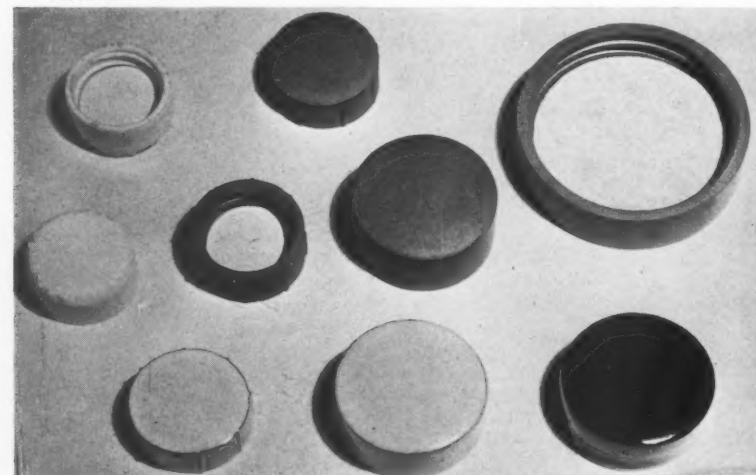
CERAMIC SCREW CAPS

Vanderlaan Tile Co., 103 Park Ave., New York City, is the distributor for new ceramic screw caps made by the Atlantic Tile Co. These caps may be a practical solution to the closure problem in a number of cases where metal is unavailable and are said to be capable of withstanding as much rough handling as a glass jar. These closures are available in 22, 28, 38, 63 and 89 mm. sizes, glazed or unglazed, in about 60 different colors and shades. They are further reported to be water-, boil-, alcohol- and acid-proof. They are higher in price than comparable caps of other materials, but are being considered favorably by cosmetic houses, several of which are already reported to have them on order.

The company states that dies are readily procurable for all sizes, that their present capacity of about 2,000,000 caps per week may be accelerated in the near future.

Examples of ceramic caps available in five sizes and 60 colors and shades.

COURTESY, THE GLASS PACKER



REDUCER-TYPE TRANSMISSION

A new unit built by the Reeves Pulley Co., Columbus, Ind., is the reducer-type transmission which consists of the standard variable speed transmission with built-in speed reducer. This drive has been developed to meet the many requirements for accurate speed control and speed reduction combined in one compact enclosed unit, the company states. It is available in two enclosed designs, horizontal and vertical, may be mounted in any convenient or desired position and thus reduces equipment space formerly required for the use of auxiliary speed reducer.

NEW USES FOR CANDY WRAPPING MACHINES

The Lynch Mfg. Corp.'s high-speed wrapping machines, formerly used to wrap candy bars, are now wrapping tremendous quantities of field rations, ration bars, and mixed fruit bars for the armed forces. The machines use glassine, cellophane, heat-sealing papers and other types that may be printed in rolls. An electric eye maintains positive registration. Bottom cards or boats are automatically fed.

AIR POWER STACKER

The Lewis-Shepard Sales Corp. of Watertown, Mass., announces its air power stacker, a portable elevator, for use in connection with hazardous operations. The company states that this stacker with air power motor is safe, fast and efficient in all explosive atmospheres. It will operate at the same air pressure and volume as industrial overhead air hoists, available with automatic stops to prevent possibility of over-ride when lifting or lowering.

NEW TYPE VACUUM PUMP

A positive-type vacuum pump for production and laboratory applications, manufactured by American Automatic Typewriter Co., Chicago, is supplied with individual electric-motor drives or without motors for use with an available power source.

The pump employs four bellows mounted within a square wood frame, connected to each other and to the pump outlet by a channel running through the frame. Bellows, which are successively expanded to exhaust air or gas from the equipment to which the pump is connected, are driven by a revolving shaft through connecting straps.

The pump may be readily incorporated into the design of machines or equipment, providing advantages of quiet operation with low power requirements.

COLOR STANDARDS CHECK LIST

A helpful guide for those who select colors in printing inks is the new "Color Standards" folder prepared by the General Printing Ink Corp. This booklet contains a printed summary on the subject of color standardization with a listing of 34 of the leading color systems commonly used today including a short description of each. The brochure was printed in response to many requests for such data and copies are available on written request to General Printing Ink Corp., 100 Sixth Avenue, New York City.

AN AMERICAN INSTITUTION WORKING WITH AND FOR AMERICA



The great task ahead requires individual "all-out" performance from each of us. Every branch of the service, abroad and at home, in our factories, fields, mines and within the home, all of us are affected by the essentials of the national nutrition program. Food, too often in the past taken as a matter of course, now may well be the turning point to Victory. The precious products from our farms and ranches must be protected and conserved to the nth degree lest we weaken our cause. Spoilage, shrinkage and contamination must be held in check through adequate packaging protection. Here at Rhineland the experience of nearly a half-century devoted to specialization on protective papers is concentrated upon improving the quality and increasing the production of America's essential food wrappings.



Folke Bechler
PRESIDENT
RHINELANDER PAPER COMPANY

FROM THE BEST THAT'S MADE TO THE CHEAPEST THAT'S GOOD

Genuine Greaseproof
Coffee Bag Papers
Confectionery Papers
Cereal Wrapping Papers

Laminated Greaseproof Papers
Lard and Shortening Liners
Bakery Product Wraps
Coated Food Packaging Papers

Cracker Box Liners
Greaseproof Innerwraps
Glassine Papers, Plain,
Colored & Embossed

Wax Laminated Glassine
Opaque Label & Bag Glassine
Packing Industry Wrappings—
and Specialties to order

RHINELANDER PAPER COMPANY • MILLS AT RHINELANDER, WISCONSIN, U. S. A.

APRIL • 1943 195

Plants and People



F. H. Braithwaite

F. Howard Braithwaite has been elected vice-president in charge of sales of the Crown Can Co., according to an announcement made by Richard P. Swartz, president of the company. Mr. Braithwaite has been with the Crown organization since 1936 when he joined the Crown Cork & Seal Co. as divisional sales manager. In 1939 he became New York sales manager and last year, vice-president in charge of general line sales.

Dr. Donald K. Tressler, an authority in food science fields, has joined the General Electric Co.'s appliance and merchandising department and will be in charge of food research activities of the General Electric Consumers Institute. Dr. Tressler's recent studies have been on the freezing and preservation of foods, commercial dehydration of vegetables and subsequent storage, and the making of synthetic waxes from waste food grease. He served twice as vice-president of the American Chemical Society; and is now councilor and vice-president of the Food and Nutrition Section, American Public Health Assn.; director, Institute of Food Technologists; chairman, Research Advisory Committee, National Association of Refrigerated Warehouses; and director of the American Society of Refrigerating Engineers. The results of Dr. Tressler's food studies will be published from time to time as a phase of the Institute's plan to make its services available to as many families as possible.

Paul J. Thoma, vice-president of the E. J. Kelly Co., has been appointed a member of the Technical Printing Ink Sub-Committee of the Protective and Technical Coatings Industry Advisory Committee.

The Lithographers National Assn., Inc., announces the appointment of William L. R. Broun as executive assistant to W. Floyd Maxwell, secretary. Mr. Broun will assist in the Association's educational program and cover such activities as writing confidential bulletins to the membership, service inquiries and assist in the digest of legislation from Washington.

The B. F. Goodrich Co. has been awarded the largest single order for conveyor belt ever written in the history of the rubber industry. The belt—totaling more than 66 miles—is part of a war order. When completed, it will require 50 standard railroad cars to move it, according to W. S. Richardson, general manager of the Industrial Products Division.

Perfect Shipping Campaign, sponsored by National Assn. of Shippers Advisory Boards, will be intensified throughout the month of April, according to George H. Shafter, president of the association. The drive to safeguard movement of war traffic against loss and damage in transit will be directed by E. A. Jack, general traffic manager of the Aluminum Co. of America and will have the cooperation of 25,000 shipper-members of the 13 regional advisory groups, the Assn. of American Railroads and the Railway Express Agency. Joseph B. Eastman, director of the Office of Defense Transportation, and Donald M. Nelson, chairman of WPB, have endorsed the campaign.

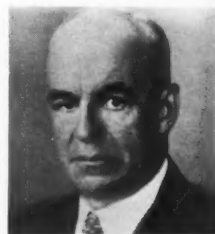
American Coating Mills, Inc., have announced the removal of their New York City offices to 271 Madison Avenue, N. Y. C.

H. W. Prentis, Jr., president of the Armstrong Cork Co., has become a member of the Business Advisory Council of the U. S. Dept. of Commerce at the invitation of Jesse Jones, Secretary of Commerce. This Council, founded in 1933, is composed of some 60 business and industrial leaders of the country, and the organization's activity today is centered on the part business and industry are playing to speed production of essential war material.

The Package Machinery Co.'s "clearing house" plan, through which manufacturers are aided in procuring such packaging machinery as is made idle by material scarcities and priorities, is proving so successful that it is planned to continue this service, according to announcement by George A. Mohlman, president of the company.

Arthur W. Brockway, vice-president and treasurer of Muirson Label Co., Inc., has accepted the chairmanship of the Graphic Arts division of the 1943 Red Cross War Fund campaign.

Dr. Ernest Martin Hopkins, president of Dartmouth College, has been elected to the board of directors of the Continental Can Co. Dr. Hopkins is well known for his work in industrial personnel work. During the first World War, he was assistant to the Secretary of War in charge of all industrial relations for the War Department. He also represented the War Department on the War Labor Policy Board.



Dr. E. M. Hopkins

Roy A. Hunt, president of Aluminum Co. of America, announces that as a result of a renegotiation agreement entered into with the government, Alcoa has made effective as of March 1, a new and lower schedule of prices for semi-fabricated and fabricated aluminum. The increased volume of production together with new and improved technique and equipment have greatly reduced many costs and therefore Alcoa considers as reasonable the requirements in its renegotiation agreement which eliminate those profits which the government felt were excessive and which, unless prices were lowered, would continue to accrue.

Herman L. Wente is the new president of the Wine Institute, elected at the ninth annual membership meeting in San Francisco, March 5. Mr. Wente succeeds Samuel W. Harkleroad.

OBITUARY

Charles E. Holden, manager of the New York office of The Mason Box Co., died March 3, 1943. Mr. Holden had been with the Mason Box Co. for more than twenty years. He opened the New York office and was instrumental in developing the company's business in the metropolitan area. Prior to his association with Mason, he had been with Dennison Mfg. Co.

Stewart Ball of the Richardson-Taylor-Globe Corp., died during March after a short illness. For more than ten years Mr. Ball had been in charge of package design and development work on all of the company's products.

*I'd feel
NAKED*



*without
it...*

"It was bad enough before December 7, 1941. Even then the war used to bother us packagers not a little, and a few of us were wondering what we were going to do about aluminum.

"But since then!!! It's been tough, brothers, and you know it—we're all on the same merry-go-round. Sometimes I think it's a spiral staircase that gets smaller as you go down!

"Even in the old days I used to depend on my Packaging Catalog to buy anything from ampoules to barrels. But now, frankly, I couldn't exist without it. Take it away from me and I feel naked. Positively."

Perhaps you're one of those thousands of packaging executives who share this gent's enthusiasm for the Packaging Catalog. But both you and he are in for an even greater surprise when you see the new

edition—the NEW WARTIME 1943 PACKAGING CATALOG—that is in the works now.

Mister, this year's Shipping Section, with its Government specs. alone "Will be worth the price of admission" as one of our subscribers tells us. It will include more than 50 pages about Shipping under wartime conditions, for Government and for private industry, for domestic and export shipments. And that's only one section. There will be fourteen sections covering every aspect of wartime packaging—substitute materials, new packaging developments, equipment problems and maintenance, etc. More than 100 separate articles—every one brand new or re-written by literally *hundreds* of experts in every branch of packaging. If previous Catalogs have been vital, this new 1943 edition will be *essential* to every packager, in the full wartime implication of the word. Buy it now!

Only **\$2.50** per copy
(*Every copy will be sold*)

1943 PACKAGING CATALOG

PACKAGING CATALOG CORPORATION • 122 East 42nd St., NEW YORK CITY

For Your Information

The National Convention of the American Pulp and Paper Mill Superintendents Assn., which will be held at the Commodore Hotel in New York City on June 15-17, will feature a program designed to aid in the war. The highlights of the annual convention will include an exhibit of paper, paperboard and paper products and a discussion of problems facing the pulp and paper industry as a result of the war by outstanding representatives of the war agencies. The war uses for paper, paperboard and paper products will be exhibited through the cooperation of the War Department and other government agencies, the manufacturers of paper as well as the companies who have developed new uses for paper in packaging their products. At group meetings there will be round-table discussions of processing and maintenance problems.

Details of the McCandlish Awards for 1943 have just been issued. This year, unlike previous years, no commercial products will be featured as poster sketch subjects. This year's contest has two poster subjects—U. S. War Bonds and Savings Stamps and the American Red Cross. Contestants may develop any angle on the selling of War Bonds and Stamps in their poster sketches that they desire. The American Red Cross has requested that the contest sketches submitted on the Red Cross feature the services which that organization renders to our armed forces. First Prize in the contest will be \$500 in War Bonds; Second Prize, \$300 in War Bonds; Third Prize, \$150; and Fourth Prize, \$50 in War Bonds. A Certificate of Merit will be issued to each contestant whose entry is judged worthy of Honorable Mention by the Jury of Awards. The contest closes on May 1 and all contest entries must be in the hands of the McCandlish Lithograph Corp., Roberts Ave. and Stokley St., Philadelphia, by five P.M. on that date.

More than 150,000 Shiftographs, an instrument designed for use as a perpetual work shift schedule, are being distributed free of charge by the George S. May Co., New York and Chicago, as its contribution to America's war industry. The Shiftograph is so designed that the user simply turns a dial to tell at a glance what shifts certain crews will work, the days they work and their days off. It provides for several different plans of rotation wherein all employees are treated alike, for they share equally in desirable and undesirable work shifts. It was designed by the May company and had the approval of Donald M. Nelson and his associates for consideration of the Shiftograph by industry.

Because the name was neither descriptive nor indicative of the membership, the name Chicago Assn. of Manufacturers' Representatives has been changed to Grocery Manufacturers' Sales Executives of Chicago, according to Bob White, president. On May 17, the GMSE will sponsor an all-day program for the U. S. Army Quartermaster Department. The meeting will be held at the Chicago Edgewater Beach Hotel.

Colors absorb and reflect heat rays as well as light rays. For this reason they are practical and efficient "insulators" to control temperature and minimize the evaporation of certain liquids. According to data assembled by the Color Research Laboratory of the Eagle Printing Ink Co., Div. of General Printing Ink Corp., New York, white is the best color to repel heat and black the poorest. In a study of gasoline storage tanks, the U. S. Bureau of Mines found that a red tank had an evaporation loss of 3.54 per cent (over 4½-mo. period) as against 1.4 for white.

Compressed dehydrated foods, stamped out in presses to save tons of cargo space and wrapped in cellophane to save steel and tin, are being shipped to our allies abroad. Representatives of England, Russia, China and other foreign nations sampled the new compressed dehydrated foods at a special luncheon given in Washington recently by the Lend-Lease Administration to mark the second anniversary of the passage of the Lend-Lease Act. Members of the Cabinet and of Congress and other government officials were among the several hundred who attended. The luncheon was prepared entirely from dehydrated foods of the type sent in quantities to the Lend-Lease consumers.

Instruction in the proper preparation and handling of dehydrated food products will be extended to all army cooks through a special series of one-week courses to be given in some 80 Bakers and Cooks Schools under the supervision of the Quartermaster Corps, in each of the nine Army Service Commands, the War Department announces. "The Dehydrated Foods Cooking Manual," the first American cookbook which deals exclusively with the preparation and cooking of dehydrated foods, will serve as a training manual in the new courses and will be supplemented by bulletins, demonstrations and practical cooking with all types of equipment and lectures employing visual aid instruction. Dehydrated foods are expected to play a prominent part in army subsistence in the coming months, particularly in feeding American soldiers on overseas duty.

Fibreboard Products, Inc., San Francisco, has made available a booklet on "How to Load Canned Foods and Dried Fruits." It includes patterns of layout in boxcars for all the different sizes of cases, information about case sealing and stitching as well as the various loading formulas for different size canned goods.

Although subject to certain wartime restrictions, beauty aids are plentiful according to a bulletin from the Office of War Information. Controlled only through WPB allocations of war-important raw materials, manufacturers are free to make powder, lipstick, creams, mascara, nail polish—any cosmetics women want. Those who wish to read the complete release, refer to WPB-2703 (March 10, 1943) of the Office of War Information.

Handbook of Mechanical Design by George F. Nordenholt, Joseph Kerr and John Sasso. McGraw-Hill Book Co., Inc., New York City. 285 pages. \$4.00. This is a handy book of time-saving ideas and data for the designer of industrial machinery and equipment. Everything is boiled down to essentials and presented in concise charts, tables, check lists, etc. Calculations, properties of materials, production factors of design and similar material are well represented. Other chapters give a great many basic designs for fastenings, mechanisms, drives, controls, etc., readily adaptable to a wide number of applications.

CORRECTION

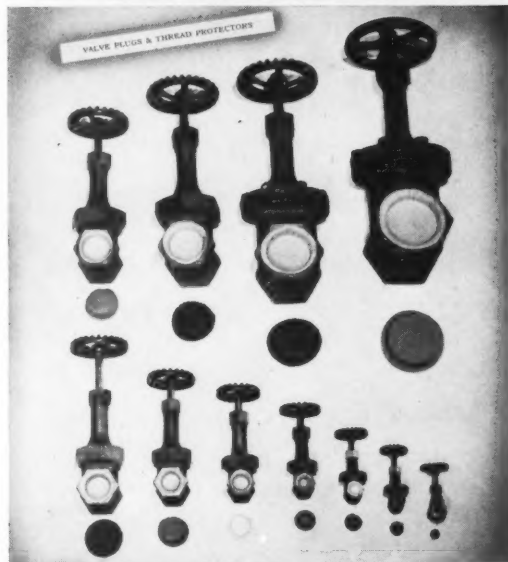
In the article by Elon Brown on "Liners and Laminants for Fibre Containers," page 110 of the March issue of Modern Packaging the expression "Thermoplastics (hot metals)" was incorrectly printed, due to a typographical error. The correct expression is "Thermoplastics (hot melts)."

Cry-O-Vac was wrongly referred to as rubber hydrochloride, on page 100 of the March issue. Cry-O-Vac is practically pure latex rubber and not the hydrochloride.



ROUND SUBSTITUTE PAPER PACKAGES

Help many Industries over Priorities



THE paper tubes, cans and drums shown on this page are helping many industries avoid dislocations arising out of the metal container shortage. Metal end, fibre body containers are used for packaging dry products. They can be furnished only on priority orders. Packing protection is furnished by use of paper plugs, used as thread protectors for tapped holes, gas tank openings, spark plug openings, valve openings; heavy cores and thread protectors. Newly developed, all-paper quality

containers, combine eye appeal and utility, are well adapted for the packaging of tooth powder, talc, bath powder, etc. Your labels applied to specifications. All-paper utility containers are used for packaging dry products in the food, drug and chemical fields. Large range of sizes is available. Also: printed tubes (small diameters) used as vial containers; condenser tubes in radio field; printed to specifications. Low cost fibre drums with newly developed coating will hold greases, paints, heavy oils.

The CLEVELAND CONTAINER Company

10630 Berea Rd., Cleveland, Ohio

Other Plants: NEW YORK CITY, PHILADELPHIA, CHICAGO, DETROIT, PLYMOUTH, WISC., MILLTOWN, N. J. PALMER, MASS.

Top Award
ALL-AMERICA PACKAGE COMPETITION

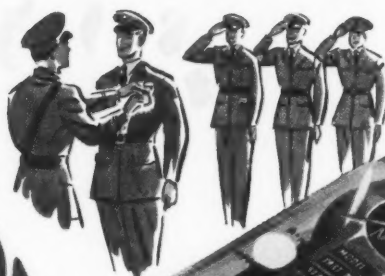
ON THE WAR FRONT



Milprint furnishes laminated Cellophane leadfoil-kraft pouches (Quartermaster specifications) for the gallon dehydrated vegetable unit. Proven overseas shipments food to our fighting men and allies!

TO MILPRINT FOR ADEL PACKAGING

How to protect overseas shipments of metal airplane parts from dirt, dust, corrosion? Adel Precision Products Corporation asked Milprint Packaging Engineers for the answer. Major Award Winner in All-America Package Competition, these Cellophane bags not only protect, but identify every valuable part!



ON THE HOME FRONT



Another winner! A highly successful metal replacement package for frozen eggs. Milprint's Cellophane Seal-Liner Pouch, used to line ordinary cartons, does the trick. These packages scored high in tests conducted by National Egg Products Association.



Chocolate syrup for ice cream bar coating formerly was shipped in metal containers. No more metal... so Milprint Packaging Engineers designed a Cellophane pouch which could be used in a fibre drum. Sanitary... leakproof! holds approximately 60 pounds of syrup.



Bandages must be kept sterile . . . must be protected from dust and dirt. Milprint is producing a number of different bags and wrappers for the proper protective packaging of bandages.



Army Field Rations . . . to feed our soldiers in the thick of battle! Many of these Ration units are protected by Milprint packages.

Out in Front ON EVERY FRONT



MILPRINT PROTECTIVE PACKAGING

Safeguarding food shipments and military supplies . . . conserving vital metals with practical replacements . . . Milprint Protective Packages are rendering outstanding service at home and abroad. ★ Only a few of the many packages we are now producing for a nation at war are shown on these pages. Even though **your** product is not illustrated, Milprint Packaging Engineers probably have designed . . . or can create . . . a package to meet your present and future requirements. ★ Protective Packaging is our job . . . and we've done it better every year . . . for 43 years!



THE PROBLEM: design from available materials an attractive protective package for dehydrated soup. **THE ANSWER:** this beautifully printed laminated glassine pouch. A special coating (created by Milprint) on inside of pouch makes it greaseproof, moistureproof and heat-sealing.

MILPRINT, INC.



*Packaging Engineers
to a Nation at War*

MILWAUKEE PHILADELPHIA LOS ANGELES

Packaging Exposition and Conference

Thirteenth Annual Packaging Exposition and Conference sponsored by the American Management Assn. will be held April 13 to 16, inclusive, at the Hotel Astor, New York City. The tentative program and the list of exhibits shown below will give a panoramic view of how packaging is contributing to the winning of the war.

TUESDAY MORNING

Chairman: C. B. Larrabee, president, The Printers' Ink Publications, New York.

10:00—War Has Brought Packaging Down to Earth

Joseph Givner, executive vice-president, Real Silk Hosiery Mills, Inc., Indianapolis, Ind., and vice-president, Packaging Division, AMA.

11:00—What Is the Packaging and Materials Situation Today?

Charles Sheldon, purchasing agent, Hood Rubber Co., Watertown, Mass.

TUESDAY NOON

12:30—The Shape of Things to Come

Watson Davis, director, Science Service, Inc., Washington, D. C.

TUESDAY AFTERNOON

2:00—The Voice of Experience

John Morrell & Co., F. D. Cummings, Ottumwa, Iowa.
Merck & Co., Inc., Stanley W. Burnham, Rahway, N. J.
Tung-Sol Lamp Works, Inc., Kenneth P. Morehead, Newark, N. J.
United Drug Co., Roland L. Baum, Boston, Mass.

WEDNESDAY MORNING

Chairman: A. W. Luhrs, chairman, Container Coordinating Committee, WPB, Washington, D. C.

9:30—The Packaging of Dehydrated Foods

10:30—Technical Developments in Moisture Proofing and Protection

Charles A. Southwick, Jr., technical editor of Modern Packaging and package research director, Shellmar Products Co., Mt. Vernon, Ohio.

11:30—Folding Boxes Have Gone to War

Walton D. Lynch, vice-president, National Folding Box Co., New Haven, Conn.

WEDNESDAY AFTERNOON

Chairman: E. A. Throckmorton, director of sales research, Container Corp. of America, Chicago, Ill.

2:30—What Does Washington Say?

War Production Board: Eldo Tomiska, deputy chief, Containers Division, Washington, D. C.

*Quartermaster Corps: Major F. F. Berlinger, A.U.S., Washington, D. C.

*Medical Corps: James Studley, Office of Surgeon General, A.U.S., Washington, D. C.

Lend Lease: Andrew Loeb, Office of Lend Lease Administration, Washington, D. C.

*Services of Supply: Major M. J. Odell, chief, Container Division, A.U.S., Washington, D. C.

Navy: Philip Kennedy, Container Division, U. S. Navy, Washington, D. C.

*Agriculture: C. R. Joslin, Department of Agriculture, Washington, D. C.

*Ordnance: Herbert Holbrook, Packaging Section, Office of Chief of Ordnance, A.U.S., Washington, D. C.

THURSDAY MORNING AND AFTERNOON

Chairman: C. P. Winslow, director, Forest Products Laboratory, Madison, Wis., assisted by a panel of instructors from U. S. Forest Products Laboratory.

9:30-12:30 }
2:00-4:30 } The Packaging of General Supplies.

This will be an all-day lecture and discussion session on the practical application of the packaging principles laid down in the government's forthcoming "Standard Specifications Manual." A condensed course similar to that conducted by the Laboratory in Madison.

* Not yet accepted when this went to press.

GUIDE TO EXHIBITS

ARMY AND NAVY

The AMA reports that plans are now being completed for what is expected to be one of the most instructive and historic exhibits ever to feature the Packaging Exposition. This will be a showing of packages and shipping containers that have been used in transporting all kinds of goods to the fighting fronts of the world. Sponsored by the Army and Navy, the exhibit will show containers that have been to such theaters of war as the Solomon Islands, Russia and North Africa. It will show packages that were subjected to submersion in torpedoed ships, pounded by the surf in South Sea islands and frozen in the ice fields of the far north. Also shown will be containers and packages that are considered best in transport by air.

ALUMINUM CO. OF AMERICA BOOTH 401

Post war uses of aluminum.

202 MODERN PACKAGING

AMSCO PACKAGING MACHINERY, INC. BOOTH 403

ANCHOR HOCKING GLASS CORP. BOOTH 402

Complete lines of all WPB approved and standardized containers for foods, insecticides, motor oil, paint and other products approved by governmental regulations. Also all styles of closures, liners and gaskets permitted by WPB. Also a number of packages which have been converted from critical tin cans to glass packages. Tableware Division plans to exhibit a complete line of glass ovenware designed to replace critical aluminum and metal ware in American kitchens.

ARABOL MANUFACTURING CO., THE BOOTH 106

ARMSTRONG CORK CO. BOOTH 304

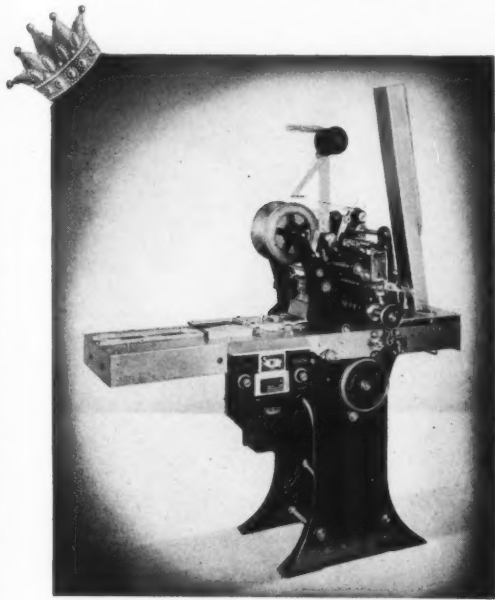
Exhibit will be built around (1) package conversion from tin to

FLEETWOOD

IMPERIALS



PEACE TIME

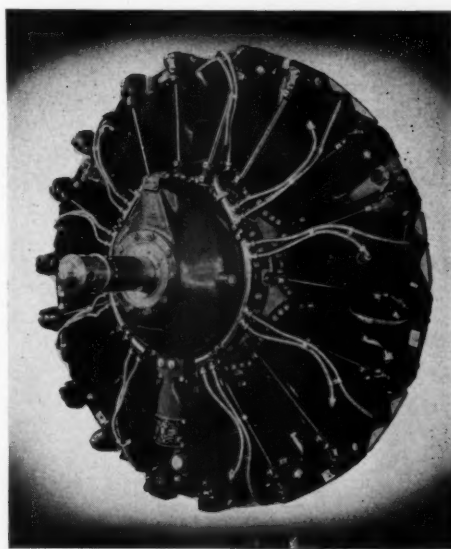
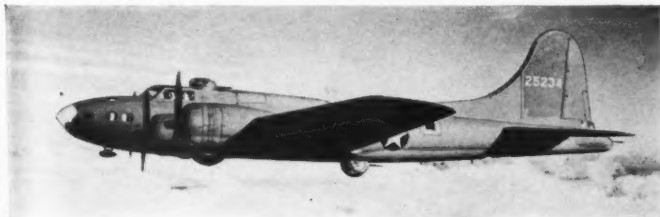


WAR TIME

HIGH SPEED
QUALITY
PERFORMANCE
PACKAGING EQUIPMENT

All Our Facilities—Night & Day—are being devoted to the winning of the war through consultation, research, and development of special processes for producing still more powerful and reliable aircraft engines.

Famous Flying Fortress



Scandia MANUFACTURING COMPANY

NORTH ARLINGTON, NEW JERSEY

Now—War Equipment

Later—New Ideas Developed

For a long time our entire facilities have been devoted to the output of equipment for our Armed Forces.

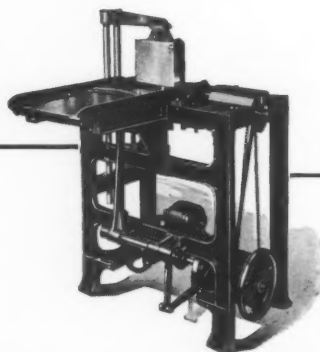
First things come first—and we intend to devote our energies entirely in this direction until "Unconditional Surrender" has been accomplished.

But we are looking to the future, too. If we are helping to win the war now, we want to contribute our share to peacetime reconstruction and progress later.

The new methods in manufacturing being used now to increase production will stand our customers in good stead after the war. Also, our Planning Department is now considering new ideas for post-war development—projects that come from within and without our organization.

It is not now possible to manufacture new items unless they have a direct bearing on the War. Plans for post-war production may be—and are being—formulated now, however.

If you have an item you are interested in having our development men examine, do not hesitate to contact us. We give every inquiry careful attention.



PETERS JUNIOR CARTON FORMING AND LINING MACHINE SETS UP 35-40 CARTONS PER MINUTE. ONE OPERATOR REQUIRED.

PETERS MACHINERY COMPANY

GENERAL OFFICE AND FACTORY

4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

glass, (2) lithographed metal caps as a means of giving standardized containers distinction, (3) the availability of cork as closures and (4) company's participation as Army-Navy "E" winners in the war effort.

BARRETT-CRAVENS CO.

BOOTH 303

Lift-trucks and skids, portable elevators and two and four wheel trucks being supplied to the government, defense plants and to concerns directly engaged in the production of guns, tanks, ships and other materials necessary to pursue the war effort.

BETTER PACKAGES, INC.

BOOTH 310

Information about company's Counterboy sealers.

F. N. BURT CO., INC.

BOOTH 2

Developments with paper to replace metal closures, metal screw caps and metal cans, as well as the new paper fabricated lipsticks, compacts and complete jewelry lines.

CELANESE CELLULOID CORP.

BOOTH 610

Applications of plastics, Lumarith, to wartime packaging, to military planes, gas masks, to the needs of the Medical Corps, to shatterproof glazing and the packaging of food and matériel.

GEO. V. CLARK CO., INC.

BOOTH 11

Permissible packages for civilian consumption in metal, acetate and cardboard. Packages for, and developments adaptable to the war effort in metal, acetate and cardboard.

CLEVELAND CONTAINER CO.

BOOTH 607

CONSOLIDATED PACKAGING
MACHINERY CORP.

BOOTH 102

Information for customers about maintenance of machines.

CONTAINER CORP. OF AMERICA

BOOTH 504

Two major divisions: One pertaining entirely to the packaging of war supplies and the other to show the use of paperboard as a substitute for packaging materials now on the critical list as, for instance, steel, tinplate, certain kinds of wood, etc.

CONTAINER EQUIPMENT CORP.

BOOTH 1B

THE DOBECKMUN CO.

BOOTHS 13-14

Exhibit will be concerned mainly with company's direct military packaging developments as well as metal replacements in the packaging field.

E. I. DU PONT DE NEMOURS &
CO., INC. ("Cellophane" Division)

BOOTHS 111-112

A review of the war uses of Cellophane, including its use on rations, lend-lease, bulk Army and Navy shipping, use in aircraft factories, ordnance wrapping, tank, truck and aircraft parts, etc. Metal replacement on civilian goods, its use in replacing cans in a wide variety of merchandise.

EASTMAN KODAK CO.

BOOTH 503

Will demonstrate the method of laminating identification passes between two sheets of our clear transparent acetate material. Display stand on which there will be items of pre-war time shown along with articles that are now being fabricated from acetate.

ECONOMIC MACHINERY CO.

BOOTH 603

Information to customers on how to keep their labeling machinery in continuous operation.

EINSON-FREEMAN CO., INC.

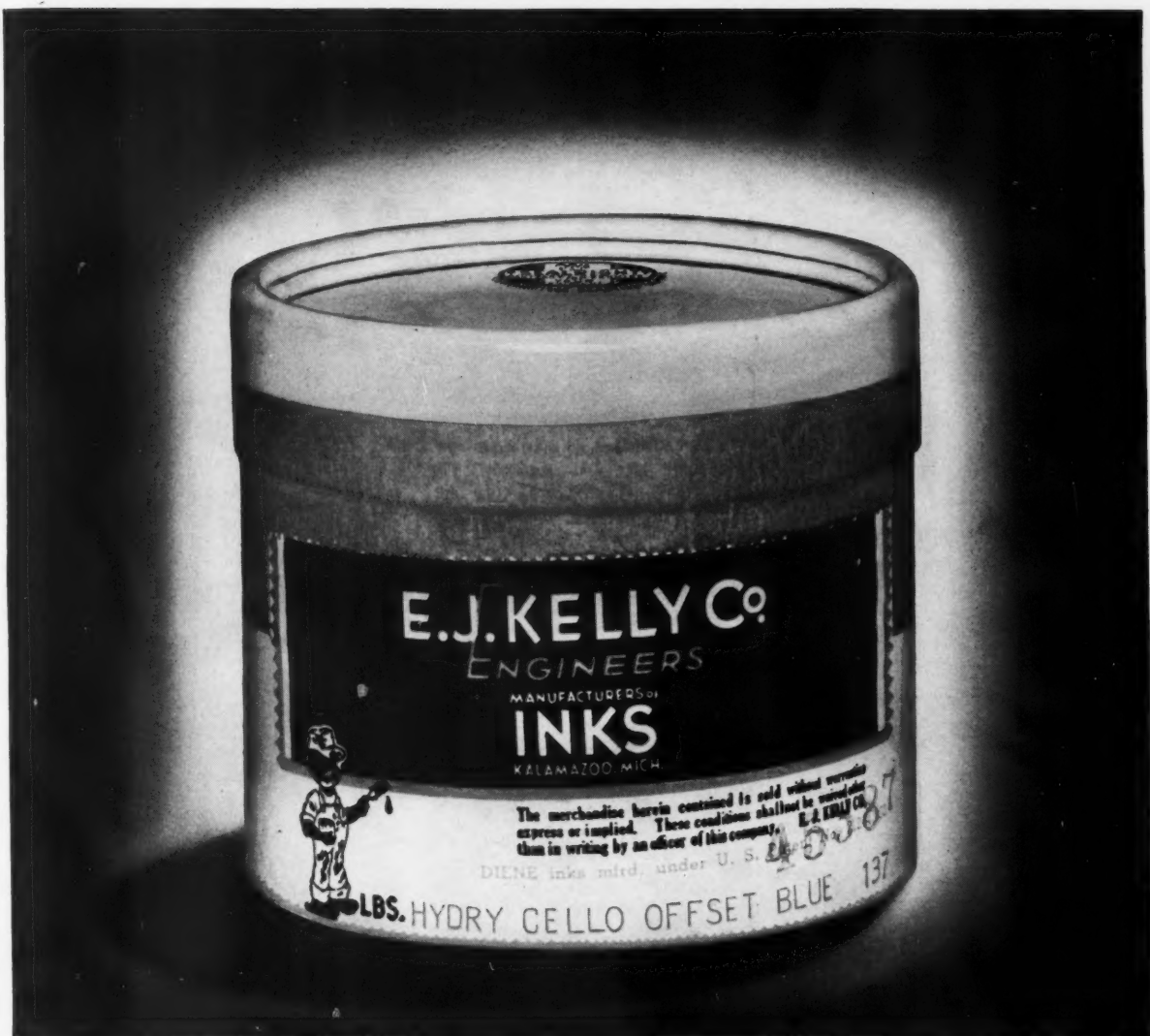
BOOTHS 7-8

Window displays of the products which use the company's services.

J. L. FERGUSON CO.

BOOTH 308

Plan to exhibit some of the smaller parts company is producing for the U. S. Navy. Photographs and literature on regular



ANOTHER WINNER!

PRINTERS' INK... of all things... joins the parade of time-honored products in new wartime dress.

The new E. J. Kelly Ink package by Sealright wins fame in the All-America Package Competition as Award Winner in the oils, paints and varnishes group.

In submitting their new package to the Competition, the E. J. Kelly Company said:

"Comments received from customers indicate the paper can has advantages over the metal container. Pressmen say that regardless of the number of times the lid is removed from the can, the lid keeps a tight fit. This feature

prevents air from hardening the ink in the container. The success we have had with the paper container to date has resulted in our decision to continue using it for the duration."

Due to new and ingenious liners, treatments and sealing methods, Sealright containers are solving packaging problems for a wide variety of products including shortening, cigarettes, tobaccos, cocoa, candy, baking powder, crackers, gelatin, cleaning compound, cereal, fillets, frozen eggs, meats and fruits. Sealright Co., Inc., Fulton, New York.







SEALRIGHT SANITARY PAPER CONTAINERS

LUSTEROID

VIALS AND TUBES



-  **SAVES WEIGHT**
-  **SAVES MATERIAL**
-  **SAVES WORK**
-  **SAVES MONEY**

Here's the merchandising container to remember when Victory is won.

LUSTEROID vials and tubes give you the advantage of light weight without sacrifice of strength or rigidity. Protection with perfect visibility. A complete range of colors for eye-and-buy appeal.

No protective partitioning or special packing required. No labels to affix—your design and sales message can be reproduced in color as an integral part of the container.

LUSTEROID vials and tubes come with cork, slip-on or screw-cap closures in standard diameters from $\frac{1}{4}$ " to $1\frac{1}{4}$ " and lengths up to 6".

Write for complete information.

Lusteroid Container co., inc.

FORMERLY LUSTEROID DIVISION OF SILLCOCKS-MILLER COMPANY
OFFICE AND FACTORY
10 PARKER AVENUE, WEST
MAPLEWOOD, N. J.
MAILING ADDRESS:
SOUTH ORANGE, N. J.

equipment, some of which is being built on high priorities for plants engaged in producing war goods.

FOOD INDUSTRIES PUBLICATIONS. BOOTH 101

FOX PAPER CO., THE BOOTH 309

THE GOODYEAR TIRE & RUBBER CO., INC. BOOTHS 202-203

A large airplane engine, fully packed and protected in a Pliofilm envelope, in the manner prescribed by both the U. S. Army and the U. S. Navy. Also, other representative applications of Pliofilm in the war program.

HEAT SEAL-IT CO. BOOTH 605

Sealed packages as produced with the use of Sealtight machines, many of which will be either direct war packages or essential food packages which are indirectly essential to the war effort. Also, several machines used in the packaging of war items such as aircraft parts, dehydrated foods for the Army and Lend Lease, gas masks, etc.

HINDE & DAUCH PAPER CO., THE BOOTH 502

Shipping boxes designed to pack war materials and lend-lease products including tank parts, airplane parts, canned foods, shell casings, frozen eggs, etc. Production run samples of weather-proof boxes, as well as V1^R_C and V2^R_C boxes recently approved by the Army and Navy.

INTERNATIONAL PRINTING INK DIVISION OF INTERCHEMICAL CORP. BOOTHS 301-302

Examples of conversion packaging on which IPI products have been used.

KALAMAZOO VEGETABLE PARCHMENT CO. BOOTH 12

Examples of company's food packaging.

KIMBERLY-CLARK CORP. BOOTH 306

Packages of war products in which Kimpak Creped Wadding in appropriate forms is employed for interior protection of finish and structure from damage by contact with each other, contact with interior walls and members of the package, rough handling, vibration, shock, rupture, rubbing, pressmarking, etc.

LIQUID CARBONIC CORP., THE BOOTH 4

MANHATTAN PASTE & GLUE CO., INC. BOOTH 9

Various packages of merchandise from customers.

MARSH STENCIL MACHINE CO. BOOTH 604

MILPRINT, INC. BOOTHS 103, 104, 105

MODERN PACKAGING PUBLICATIONS. BOOTH 601

NATIONAL ADHESIVES DIVISION OF NATIONAL STARCH PRODUCTS, INC. BOOTHS 5-6

Wartime packages made of paper and paper board, replacing metal and plastic packages formerly in use. Also—group of various types of packages showing application of adhesives in fabricating containers, etc., for many military and essential civilian uses.

NATIONAL METAL EDGE BOX CO. BOOTH 110

Improved Metal Edge method of material handlings and the packaging of spare and replacement parts in connection with the war program.

**Available in greatly
increased quantities**

— FOR FOOD PACKAGING —

GLASSINE

• As America's *only* Glassine specialist, we are qualified particularly to help you re-package in Glassine . . . can recommend and design the right package for the job, and can supply it, whatever the type of package and kind of Glassine, whether plain or laminated to other materials, super-transparent or opaque.

• Further—restriction on industries to which we have been leading suppliers, releases an important amount of our resources for use in food packaging. *We can supply!* . . . and, may even be able to meet emergency demands from warehouse stock while awaiting mill delivery of your order!

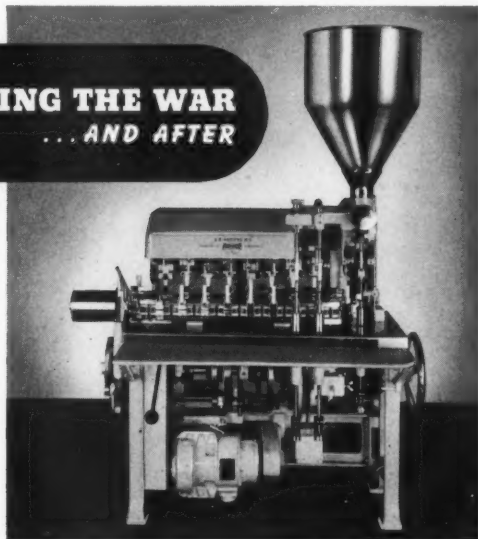
• *Prices?* You get the advantage of our large-volume buying. Investigate; send sample or specifications for quotation; be sure to mention quantity.

Packaging Division E. W. TWITCHELL Inc.


832 Public Ledger Bldg., Philadelphia Pa.

Specialist in Special-Purpose Paper Packagings

DURING THE WAR ... AND AFTER



ARENCO is devoting its facilities entirely to war work and in cases where a highly efficient tube filling machine is essential to the war effort we can deliver in short time.

The ARENCO MACHINE COMPANY, Inc. 
25 West 43rd Street • New York, N. Y.



Stick
with
STAR

STAR adhesives are so highly concentrated that you'll find yourself using a smaller amount of adhesive and actually getting more adhesion.

Quick penetration, instant tack, not too fast drying are standard qualities of STAR adhesives, which are made in a line complete for every purpose.

The STAR line includes:

- ★ STAR Case Sealing Glue
- ★ STAR Folding Box Glue
- ★ STAR Hot and Cold Pick-Up Gum
- ★ STAR Tin Paste
- ★ STAR Brightwood Gum
- ★ STAR Carton Sealing Glue
- ★ STAR Bench Paste
- ★ STAR Tube Glue
- ★ STAR Lap End Paste
- ★ STAR Tightwrap Glue

Our L-172 STAR adhesive is water-proof, and for both machine and hand operation.

Write for
instructive
folders:

"Make Your Identity Stick" and
"Here's a Bird of An Idea"

BINGHAM BROTHERS COMPANY

FOUNDED 1849

Every Kind of Roller and Adhesive

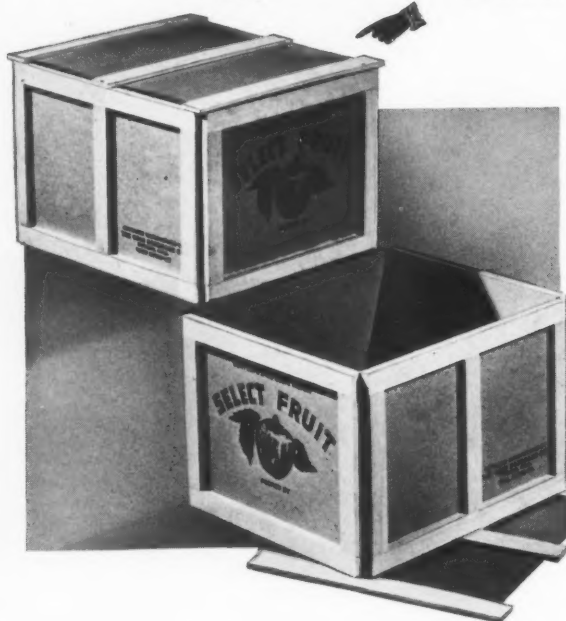
NEW YORK
406 Pearl St.
ROCHESTER
980 Hudson Ave.

PHILADELPHIA
521 Cherry St.
NEWARK
Brown St. & Lister Ave.

BALTIMORE
131 Colvin St.



The **ADHESIVE** is the Key
to this *Special* **AWARD WINNER**



Withstands COLD-STORAGE Handling

IN the creation of their Special Award Winning fruit box, one of the toughest problems Ohio Boxboard had to lick was the adhesive formula. Full credit goes to this progressive package developer and producer for their outstanding award achievement. We are proud to have been able to contribute the adhesive to its solution.

Their development is the first successful substitute for the old-style wooden fruit box. It is a combination of a wood frame and corrugated walls. The wood and paper are held together by an adhesive, which eliminates nailing until the final pack. The container must fold flat, yet stand up under the rigors of cold storage and hard freight handling. It does the job!—a real step forward in packaging.

Union adhesives are known for their versatility—we've one to do every packaging job. And if we haven't a formula to fit your problem, we'll develop one just as we did for Ohio Boxboard. Send us your problem.



Union Paste Company

1605 HYDE PARK AVENUE • HYDE PARK, MASS.

NATIONAL WOODEN BOX ASSN.

BOOTH 307

Display of wooden containers used in shipping military and lend-lease supplies and munitions. Continuous motion picture in color showing manufacture of wooden boxes.

NEW JERSEY MACHINE CORP.

BOOTH 501

Pony Labelrite machine to automatically label small glass ampoules. Pacemaker table gummer with motor drive. Motoair vacuum pump complete with tetryl powder collecting tank and a motoair vacuum pump.

OWENS-ILLINOIS GLASS CO.

BOOTH 201

Company's operations in the packaging field, describing new packages and their part in helping the packer as well as the consumer in the war situation.

PACKAGE MACHINERY CO.

BOOTH 406

Showcase depicting company's war work and some essential civilian packaging.

PACKAGING PARADE

BOOTH 609

Publications.

PETERS MACHINERY CO.

BOOTH 305

Information for customers on how to obtain maximum working effectiveness from their machines.

PNEUMATIC SCALE CORP., LTD.

BOOTH 405

Information regarding the conversion of existing equipment to produce items essential to winning the war and conversion of existing liquid filling equipment to handle bottles instead of tin cans or to handle substitute caps in place of metal caps.

F. B. REDINGTON CO.

BOOTH 606

REYNOLDS METALS CO.

BOOTH 3

RIEGEL PAPER CORP.

BOOTH 107-108

Protective packaging of foods.

THOMAS M. ROYAL & CO.

BOOTH 10

THE SEALRIGHT CO., INC.

BOOTH 608

Features new uses to which paper containers and closures have been adapted as a result of war conditions with its attending shortage of peacetime packaging materials.

SHELLMAR PRODUCTS CO.

BOOTH 506

SHERMAN PAPER PRODUCTS CORP.

BOOTH 109

A complete showing of products for war purposes and essential civilian use. New products developed for the packaging of highly machined metal parts and actual wrapping demonstrations for these products.

SHIPPING MANAGEMENT, INC.

BOOTH 15

Publications.

STOKES & SMITH CO.

BOOTH 505

Packages and containers handled on various packaging and filling machines, with special emphasis on Army, Navy and Lease Lend work. A Transwrap automatic packaging machine will be in operation.

TRIANGLE PACKAGE MACHINERY CO.

BOOTH 602

TRIPARD MANUFACTURING CO., INC.

BOOTH 604

Stencil machines and stencilling and marking equipment.

UNION BAG & PAPER CORP.

BOOTH 404

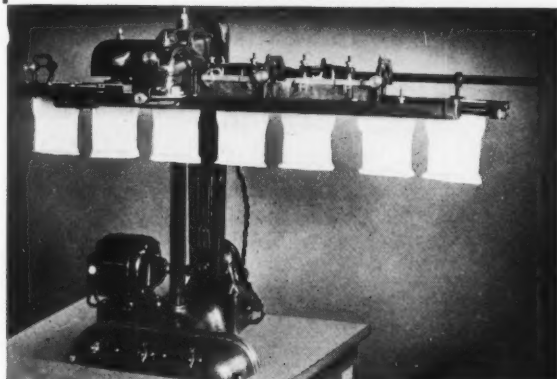
General exhibition of paper bags. Examples of conversion from tin cans to paper bags, as well as large Multiwall paper shipping containers which have replaced other packaging materials which have become war casualties.

WE ARE PROUD

of the part that AMSCO HI-SPEED SEALERS are playing in the sealing of the essential Morton Salt ration package.

We congratulate the Morton Salt Company on their well-deserved Award in the Grocery group of the 12th All-America Package Competition.

AWARD in the GROCERY GROUP OF THE 12th ALL-AMERICA PACKAGE COMPETITION



● OTHER users of AMSCO HI-SPEED SEALERS are familiar with the dependable operation of these machines in the packaging of DEHYDRATED VEGETABLES AND SOUPS * AMMUNITION * RATIONS C, I, K AND COMPONENTS * SULFANILAMIDE * SURGICAL DRESSINGS * DRIED AND FROZEN FOODS.

If you have problems in packaging anything for war, consult us. Our entire efforts are devoted to help Win the War!

Visit our booth #403 at the Wartime Packaging Show.

**AMSCO PACKAGING
MACHINERY, INC.**
31-31 Forty-Eighth Ave., Stillwell 4-4840 Long Island City, N.Y.



WHAT DO WE MEAN BY MARKING

A — Putting the manufacturer's name or trade mark on the things he makes, attractively and plainly.

B — Indicating size, color, part number, lot number, yardage, finish, material content, etc. Clearly and permanently — on the product or on a fill-in label.

Rapidly with automatic or semi-automatic machines. With inks compounded to go on easily, dry quickly, and adhere perfectly. With type or dies to conform to flat, rounded or irregular surfaces. To fill in labels — cut or on a roll — free or attached to product or container. For examples — the wood head of a golf club, the plastic base of a radio tube, the fabric lining of a shoe, the glass container of a drug, the steel blade of a saw. The paper label on a shirt box. Catalog D4 on request.

IF YOU HAVE A MARKING PROBLEM, SUBMIT IT TO MARKEM.

► IMPORTANT TO MAKERS OF
STEEL SHELL CASINGS




Our models PLBR and CR ink mark steel cases from 37mm to 3", 1000 to 4000 per hour, and can be synchronized with present lacquering equipment.

MARKEM Variable Designation MARKING MACHINES

BOXES, LABELS, TAGS, ENVELOPES. Easy-to-operate Markem Machines print them with trademark and specification imprints, quickly, easily and inexpensively. Print boxes packed or empty. Labels, loose or on the box. Materials may be paper, boxboard, cardboard, fibre, wax paper or plastic. Also glassine envelopes.

TICKETS, TAGS, LABELS from CONTINUOUS ROLLS, one or two colors; cut-off or perforated; round or square corners; gummed or ungummed stock. Quantity may be automatically controlled. Paper, cloth, fibre, parchment or plastic.

COLLARS, SOCKS, STOCKINGS, SHIRTS, SHOE LININGS and all that myriad of large, hard-to-handle pieces of textiles, leathers and synthetics are marked in necessary detail and trademarked — all with special process Markem inks which assure legibility and durability of impression. Color possibilities unlimited.

GLASS, METAL, WOOD, PLASTICS, PAINTED SURFACES, RUBBER SHEETS — even **ABRASIVES!** There are Markem machines to trademark, decorate, size-mark, part-mark and do all other stampings on these products in the most approved Markem manner.

SHAPE AND SUBSTANCE PRESENT NO UNSOLVED PROBLEMS! There's a Markem machine to identify or decorate every part or product known to industry. And out of the Markem laboratories come special process inks, rotatable type wheels, special type bars or master printing plates so that Markem is the only source of supply you need for marking machines, devices and supplementary materials.

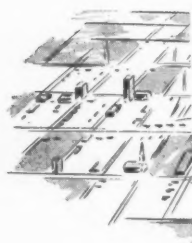
Tell us today, what you want to mark and how you want to mark it.
Send for catalog D4

MARKEM MACHINE COMPANY
KEENE, NEW HAMPSHIRE

**We're
part
of his
ground crew**



★ Every workman at Mac Sim Bar is proud to be a part of the "ground crew" that keeps American flying fighters in the air.



**WE DO NOT MAKE BOXES,
CARTONS OR CONTAINERS
BUT WE DO MAKE QUALITY
BOXBOARD.**



Crating airplanes

(Continued from page 166) one side of the case, the airplane and its parts may be easily taken out for assembly and the case, itself, may then be reassembled and returned to the factory for re-use.

While many airplanes are being shipped overseas on board ship, manufacturers are of the opinion that each airplane and its parts can be better protected from the elements by placing them in specially designed boxes, according to Fairchild. This reduces the necessity of spraying the entire aircraft with a weather-proofing substance, which is usually difficult to remove. Naturally, all exposed bolts and unfinished metal parts must still be properly coated, even though the box method of shipping is used. The dehydration method for preventing corrosion (described in March Modern Packaging) is also solving many of the shipping problems of aircraft manufacturers.

Fairchild planes, in their special cases, have weathered severe storms on decks of freighters. The cases have been left standing for months in the open without corrosion on the airplane or parts within.

Performance—wooden cases

(Continued from page 178) corrugated, as the inner protection, when dry is a better protecting medium than dry moisture-proof solid fibreboard and is equal to the latter when both are wet.

(4) Pads of B flute 200-lb. test corrugated board should be used between the layers of 2 1/2-lb. cans.

(5) Two and one-half pound cans of luncheon meat should be packed 18 to the case and the 6-lb. cans either 9 or 12 to the case. Cans in these size packs seemed to be adequately protected in either lumber or wirebound boxes.

Washington review

(Continued from page 188) The original order required rating of A-9 or higher before any movement could be made.

● **Grade Labeling**—Grade Labeling will be required in connection with 1943 pack of canned fruits and vegetables. This announcement was definitely made by Price Administrator Prentiss M. Brown in order to set at rest rumors to the contrary. Mr. Brown emphasizes that grade labeling is not a "reform measure" but states that it is a step absolutely essential to the effective control of canned fruit and vegetable prices during wartime.

● **Closures for Home Canning**—WPB announcement March 15 promises plenty of metal closures and rubber jar rings for home canning. (Amendment to Order M-104)

● **Wrapping Paper Restrictions**—WPB Conservation Order M-286 issued March 17 prohibits non-essential uses of specialty wrapping papers, including glassine, greaseproof and vegetable parchments.

● **Double Packaging for Cosmetics**—Last month this department stated that double packaging for cosmetics was to be prohibited in a forthcoming order. Later information indicates that there will be no such restrictions on cosmetics at the present time. Amendments are contemplated but there will probably be nothing to eliminate outside packaging. The Containers Branch has not changed its attitude toward over-decoration.



The Heart

OF THIS SPECIAL AWARD WINNER
IS EXTRUDED PLASTIC TUBING ☆ ☆ ☆

GOOD LUCK! F. N. Burt Company, Inc.—Winner of Special Award in the Modern Packaging All-America Package Competition.

One of F. N. Burt company's basic contribution to packaging in wartime is the paper lipstick, which has the propel-repel feature of the former metal ones. The **HEART** of this mechanism is an extruded plastic tube, to fit around the lip rouge, and inside the lipstick container.

Pierce Plastics, Inc., extrude thermoplastic tubing for the F. N. Burt Company accurately enough to fit into their mass-production automatic package-making.

As manufacturers of Special Shapes, Tape, Sheet, Rod, Cord, and Tubing, perhaps we may be of service to you.

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BAY CITY ☆ MICHIGAN
EXTRUDERS OF THERMOPLASTICS



This Is No Time to Explore **BLIND ALLEYS**

When it comes to "Specialized ADHESIVES" to meet your particular requirements... there is no need to grope about in a fog of doubt, in "blind alleys" that may lead to costly "dead ends." Operating under the limitations and urgency of war conditions, it is vitally important for you to be *right*... right at the start.

You can best serve your own interests and those of your customers by placing all of your adhesive problems in the hands of competent **AUTHORITIES** in this field. "Prescription Adhesives" for specialized industrial applications is our business. Their use is an important part of *your* business.

Bulletin F-228, just off the press, should have a place in your Purchasing Department's reference file. Write for your copy *today*. It may steer you away from "Blind Alleys" tomorrow.

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In These Trying Days of "SHORTAGE of HANDS"



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...FOR PAPER AND FIBREBOARD CARTONS

Yes, these carton waterproofing waxes represent a new method of packaging . . . now used by many manufacturers who must ship in paper containers instead of metal, fibre instead of wood.

Easily applied

These new carton waterproofing waxes may be applied in molten state by hand-dipping cartons, or the wax may be melted in a separate tank and fed into an automatic application machine.

Once applied, deep-penetrating Johnson waxes impregnate and seal your cartons with a substantial coating of wax that guards against wear and water.

Used by ordnance plants, food packers

To provide protection and water-resistance for small arms ammunition cartons, ordnance plants use Johnson's Carton Waterproofing Waxes. They are also used by food packaging plants for sealing "Field Ration Kits" for overseas shipment . . . by metal parts and surgical instrument manufacturers to seal cartons and crepe paper pads used for packing . . . by meat packers, dehydrated food manufacturers (dried egg cartons and similar packages), etc.

For complete details about this "new method of packaging" write . . .

S. C. JOHNSON & SON, Inc.

Dept. MP-43, Industrial Wax Division, Racine, Wis.

Buy United States War Savings Bonds and Stamps

What prospects—ink

(Continued from page 172) the use of glycerol phthalate resins or phenolic resins in gloss and non-scratch inks and in gloss overprint varnishes. All of these restrictions stand in the new M-53 order, so in that respect at least there has been no change.

In addition, order M-53 limited the use of organic colors in printing inks to 70 per cent of the use of the color by class in a corresponding period in 1941. Chrome yellow was likewise limited in the original order but this limit was soon raised to 100 per cent. Iron blue was limited to 100 per cent of the 1941 use.

Order M-53 as amended makes no reference whatever to color pigments, leaving the limitations in this case to order M-103. Order M-103 limits the purchase of certain organic colors in very broad classification to 60 per cent of the purchases in 1941. Actually as the order is written it operates on a quarterly basis which apparently has no great effect on its overall significance. It leaves certain classes of color which includes chrome yellows, the iron blues and the lithol reds without any restrictions whatever.

No fear regarding pigments

At first glance, therefore, it would seem that where all the printing ink industry was permitted to use 70 per cent of its 1941 use under the old M-53, it is now limited to 60 per cent of that use. However, it should be noted that WPB wisely placed the limitation on purchases by way of simplification which means that the amount of color actually available will be approximately the same as under the old M-53. Moreover there is no limitation in use so that any colors in the form of excess inventory, if such exists, may be used up without restraint. Rephrasing the summary it may be said that apparently the printing ink industry will have about the same quantity of color pigment for use in 1943 that it had in 1942 with the exception of the iron blues, chrome yellows and lithol reds which are not restricted. Therefore, if no other shortages occur and if these orders are not drastically changed and if the supply situation is such that the purchases permitted under the order can actually be made, which appears to be the case, there should be no fear regarding the pigments for inks during the coming year.

Use of edible oils

In addition to these orders, there are at least two others of some broad significance in respect to printing ink supply. Order M-71 forbids the use of edible oils in printing inks but in as much as these uses were not in very great proportions this should not be serious. It restricts also the use of the more common vehicle oils, such as linseed, to 90 per cent of the 1941 use. It is not believed that this step is drastic enough to interfere seriously with printing ink manufacture. Although the outlook concerning drying oil is considerably confused at the moment due to shipping conditions and the proposed use of linseed oil as an edible fat, it is believed there will be sufficient quantity available for printing ink uses.

Order M-81 places a certain restriction upon the use of metal containers for printing inks. However, there are substitute containers available. While these may not be as convenient to use in the pressroom there is no reason to believe that the order will interfere very much with the normal flow of printing ink.



Set Up for Bottom Stitching

Wire stitching both top and bottom provides a uniformly secure closure and gives added strength and rigidity to the case.

Write for further information



BLISS TOP and BOTTOM STITCHER

Containers with both tops and bottoms wire stitched are now specified for packing numerous products.

This combination BLISS TOP and BOTTOM STITCHER is recommended for plants whose production does not warrant installation of separate Bottom and Top Stitchers. For assembling cases by bottom stitching, the blade anvil is dropped down against the pedestal and the table is swung to one side as illustrated at left; the post is placed in a socket on the base and locked in position.

After the desired number of containers has been bottom stitched, the post is removed and table and blade anvil swung into position as illustrated at right, for top stitching the filled containers. Less than one minute is required to make the change.

The work table is fitted with ball bearings on which the box may be easily moved in any direction. The table is counter-balanced and is quickly and easily adjustable up or down by hand for boxes of varying heights.

Built in two sizes with 15" and 25" throats, and 26" x 30" work table. Handles boxes up to 25" in depth. The standard Heavy Duty Stitcher Head is used. Motor 1/4 HP.



Set Up for Top Stitching

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Kum-Kleen Transparent Labels cut labeling time as much as 300%. Applied without moistening, easy to handle, quick to apply, they adhere permanently to glass, cellophane, plastic, metal, wood, paper, etc.—yet are easily removed when

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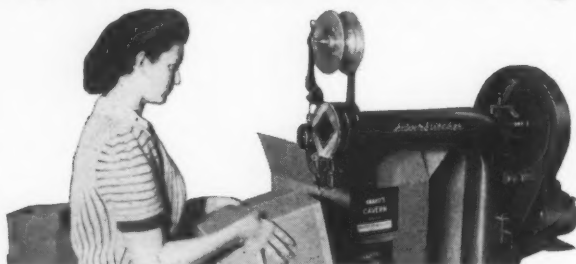
Write today to Avery Adhesives, Dept. MP-4, 451 East Third St., Los Angeles.

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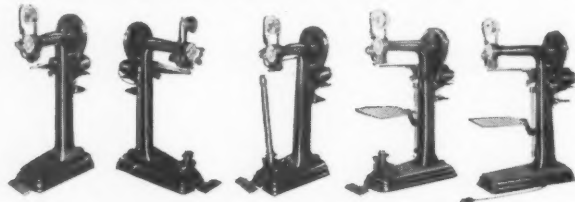
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This speedy, easy method of stitching cartons is used by hundreds of war products manufacturers. Acme Silverstitchers have doubled the output of stitched cartons for many users . . . have provided savings of as much as 50% in time and material. Assure a much stronger carton—a better and neater job. Sealing by stitching is often five times as fast as other sealing methods. Actual tests show holding power to be twice as strong, on the average. Costs are cut to a minimum.

MADE IN STANDARD AND SPECIAL TYPES

Acme Silverstitchers are made in standard and several special sizes and types . . . to meet every stitching requirement. Because they have fewer moving parts, maintenance costs are lower. Low in original cost, too, yet sturdily built . . . easy to operate . . . run smoothly and quietly. Mechanism is guarded for maximum safety . . . individual parts are precision-made and are interchangeable. Long, durable service is assured.



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Acme Silverstitchers and Acme Silverstitch Stapling Wire are engineered to function as a unit. Both wire and equipment are supplied and guaranteed by Acme Steel Company. Acme Silverstitch is made in six standard sizes . . . in five and ten-pound one-piece coils. True to size and temper . . . rust-resisting . . . non-tangling . . . provides stitches which clinch tight and stay tight for the life of the package.



Mail coupon below for facts—

If you're interested in faster and better stapling . . . lower carton stitching costs—be sure to mail the coupon below. There is a brand new folder on Acme Silverstitchers . . . fully illustrated . . . and giving all the facts. A copy is yours for the asking.

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I'm interested in faster and easier box stitching at lower cost. Please send me the free folder with all the facts.

Name _____

Company _____

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Folding box convention

(Continued from page 184) quarters at Washington and has done much to bring the industry favorable consideration as an essential war industry.

"I am an old-fashioned paper box maker," he said. "I don't believe in revolution or that you can pull yourself up by your boot straps. I believe that the members of the Folding Paper Box Assn. should forget about Karl Marx and go back to Horatio Alger. With hard work, sound principles of business and a constructive program, I am sure the Folding Paper Box Assn. will carry on to greater heights than ever."

Canadian war packaging

Mr. Hodder, in the opening session, described Canada's experience in meeting war packaging requirements. He said that paper has played and will continue to play an important part in packing dehydrated and other foods, medical, machine and other war supplies. He believed that present regulations of the packaging industry in Canada are expected to become more stringent. New forms of packaging will be needed, but utilitarian, not selling, qualities will be paramount, he stated.

Mr. Gordon said that although Paul V. McNutt, head of the WMC, has called preparation of packages for essential goods an essential wartime occupation, manufacturers must still deal through draft boards to get service deferments for their workers. He said that under the proposed Wadsworth bill for drafting of labor, present selective service boards would continue to operate and that the President might call for volunteers before the labor draft was adopted. He foresaw more critical times ahead with greater replacement of men by women in all industry under the 48-hr. week.

Employer-employee relations

Mr. Frankel discussed employer-employee relations under wartime regulations and Mr. Richardson and Mr. Symington spoke on "Our Industry's Contribution to the War Effort" at the Thursday afternoon session. Mr. Symington described the associations's tests for a new-style cutting rule for paper boxes. Tests are still continuing, he said, but indications are that the new rule, developed by the Packaging Bureau, will have a life at least double that of the old-style blade.

Mr. Richardson explained workings of the Packaging Bureau, which was started a little more than a year ago and which he heads. Ideas cleared through the bureau have aided a number of association members to adapt packages for new uses, he said.

Group meetings Friday were devoted to Government Regulations, Industrial Conditions and Traffic. N. A. Rothstein, eastern representative of the executive staff, and A. R. Lillie, of the Chicago office of the association, led the panel on Government Regulations. L. B. Moss and L. A. Combs of Chicago were in charge of the Industrial Conditions discussion and shed light on methods of complying with government regulations with regard to the 48-hr. week. Copies of government forms were distributed and methods of filing them were discussed by members of the group present.

C. L. Fenstermaker and Jules Deininger led the discussion on Traffic. Mr. Fenstermaker declared that present shortages of railroad cars may become more stringent in the future as the war progresses.



"SEAL TOP" CLOSURE

This prizewinning closure is just one of the regular products of our plastics engineering service. We work for all industries.

PLASTIC Engineering, Inc.

8506 LAKE AVENUE ★ CLEVELAND, OHIO

Every bottle has a cap—but few of them are truly "tops". That's why the Award given to Cummert Products Co.'s Energine Lighter Fluid dispensing cap is significant. The judges singled this molded plastic closure from thousands of entries for their Award, because the new plastic screw cap and pouring spout is both distinctive and functional. It is a conversion from the former metal can and pouring spout.

The piece is noteworthy from a manufacturing point of view since it is injection molded, twelve at a cycle, with the little caps—also a dozen at a time—joined to the same sprue. A tip, which must be broken off before the fluid can be poured, is molded on to give a perfect seal.



Twenty-five years ago we were asked to interrupt our manufacturing production and to do our part in helping to win a war.

The call has come to us again and our entire productive capacity has been turned to defense work designed to stop the aggressor.

Replacement parts for equipment manufactured by us, now operating in our customers' plants, will be served promptly, provided the orders for these parts carry proper priorities and meet with the approval of the War Production Board.

Orders for new machines of our standard type will be accepted only if accompanied by proper priorities until the end of the present emergency.

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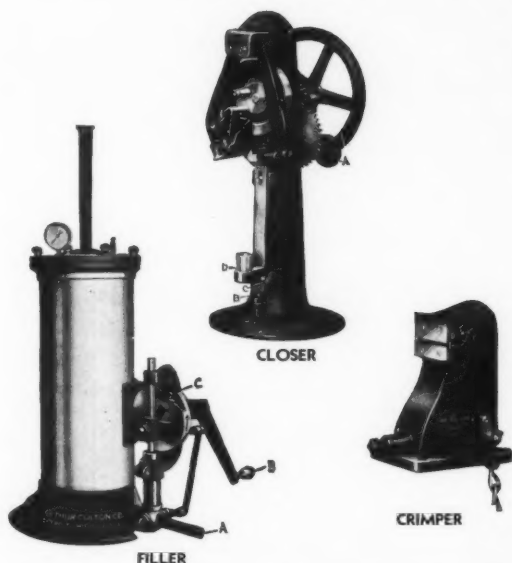
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➔ **GENERAL MANAGER WANTED** for Folding Box Plant, practical executive and supervisory experience in fundamentals of manufacturing preparation, costs and estimating. Good opportunity. Give full details of experience to warrant investigation and to justify expense of personal interview. State salary desired. Plant located 50 miles from New York City. Reply Box 175, Modern Packaging.

➔ **WANTED:** Asphalt laminating machine, 57 inch trim, minimum. Give complete information including age and condition of machine. Reply Box 173, Modern Packaging.

➔ **WANTED:** Estimator and General Manager with adequate background by manufacturer of Folding Paper Boxes. State salary expected and give full information regarding references and where last employed. If satisfactory, will pay transportation for personal interview. Reply Box 176, Modern Packaging.

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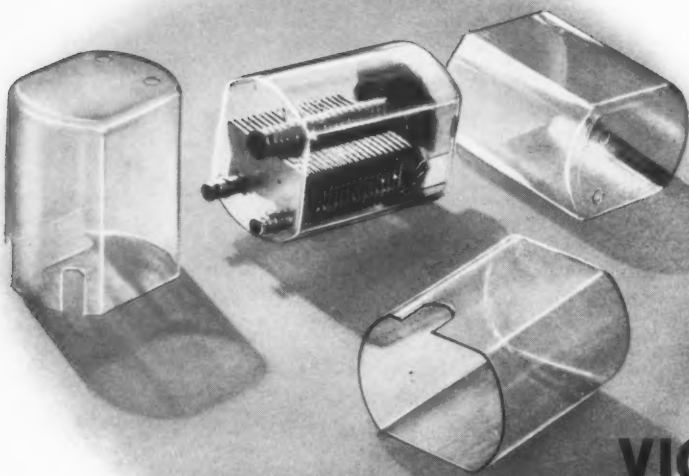
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...with a promise of better
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HERE is another war job for Vuepak which promises even better rigid, transparent packages for postwar products.

To protect this condenser, one of the vital parts for Signal Corps equipment being manufactured by the Galvin Corporation, it is "packaged" in a tough, dust-proof housing of Vuepak, the same clear, sturdy cellulose acetate sheet material which helped many a manufacturer step up the sales appeal of his peacetime products.

Any fabricator who has worked with rigid, transparent plastics will recognize the exceptional job the Peerless Products Company of Chicago

has done in forming these little condenser housings from single sheets with an exceptionally difficult, long drawing operation.

Any manufacturer who has known first-hand the advantages of prewar Vuepak will realize that here is an even better material for his postwar packaging once Victory is won.

To fill this and scores of other exacting, vital jobs, new Vuepak formulations have been developed which some day will mean tougher, sturdier, more attractive packages with greater selling power than ever! MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield, Massachusetts.



The world over, there is no army as well fed as our own. U. S. soldiers not only get a wholesome bill of fare but often they're given a choice of foods they preferred in civilian life.

The individual cereal packages shown below illustrate this. In the field or at the training centers our soldiers can choose their breakfast cereal. The back panel of the carton is easily opened, milk poured in and the cereal eaten right out of the box!

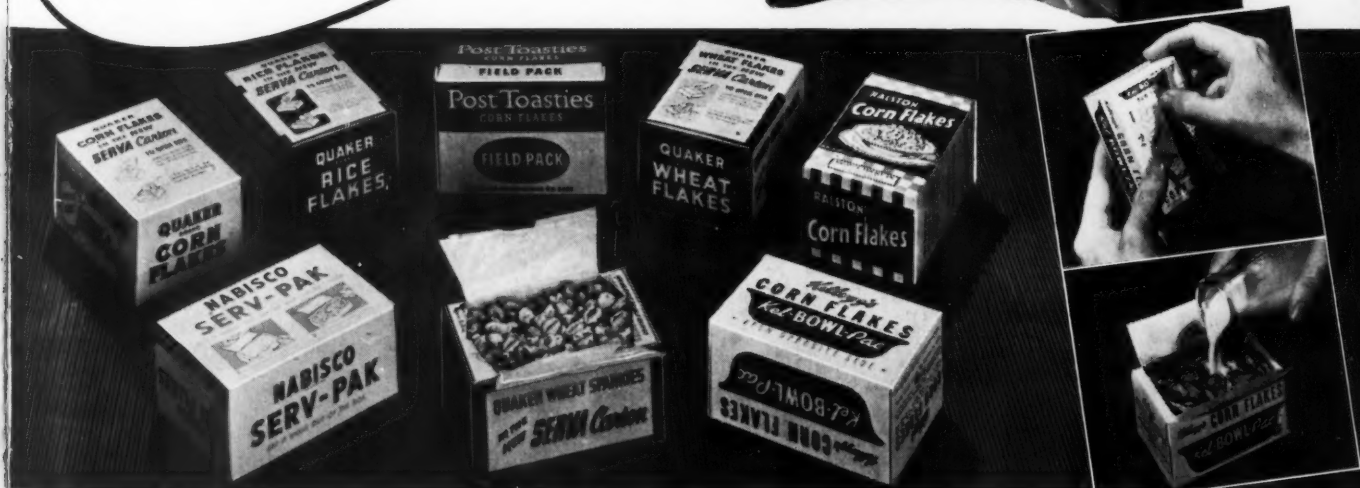
This is just one of the useful war-time jobs that Michigan Cartons are performing today. On the home front as well as in the services and abroad they're busy safeguarding precious foodstuffs.



MICHIGAN CARTON CO.

BATTLE CREEK, MICHIGAN

Boy-just
like Home!



The Package

that went on a reducing diet



Today you buy vacuum-packed coffee in strong Duraglas jars that are just half the weight of jars used when this modern package was first introduced. Duraglas-research has also developed a wartime closure made of noncritical materials.

Duraglas* has changed the packaging picture. Duraglas containers for all types of products are economical, strong and lightweight enough for low-cost, automatic handling and shipping.

The natural advantages of glass, plus the improvements wrought by the Duraglas technique, make it the packaging material of the future . . . in wide use today.

Owens-Illinois Glass Company, Toledo.



OWENS-ILLINOIS GLASS

Developers of *Duraglas* — The Improved Technique in Glassmaking